How do you make a surgeon? Not by the preliminaries,...but by the five, six or seven years that someone spends after medical school learning the surgical trade. Exactly what happens in this apprenticeship period that transforms that someone...?

It’s not an easy question to answer. The transformation is a slow process marked by a little more dexterity on one case, a slight improvement in judgment on another, a bit more confidence on a third. Not big jumps, just small steps forward. But when it’s all over and new surgeons are turned loose to practice their art, somehow they’re ready. They have to be.

Taken, with slight modifications, from the introduction of “The Making of a Surgeon” by William A. Nolen, MD.
Vision

Working together for excellence in specialty medicine for healthy Canadians

Mission

The royal College is dedicated to excellence in specialty medical care, the highest standards in medical education and lifelong learning, and the promotion of sound health policy

Strategic Priorities and desired outcomes

• Adapt and strengthen specialty medicine to meet society’s health needs.
• Support members throughout their education, profession and retirement.
• Advance specialty medical education and lifelong learning.
• Build the capacity, effectiveness and accountability of the Royal College.
• Canadians will benefit from timely, evidence-informed, excellent specialty care.
• Members will see the Royal College as essential and relevant in performing their professional responsibilities at a high standard.

University Mission Statement

"At McMaster, our purpose is the discovery, communication, and preservation of knowledge. In our teaching, research, and scholarship, we are committed to creativity, innovation, and excellence. We value integrity, quality, and teamwork in everything we do. We inspire critical thinking, personal growth, and a passion for learning. We serve the social, cultural, and economic needs of our community and our society."

University Vision

"To achieve international distinction for creativity, innovation and excellence."
VISION
To achieve excellence in evidence based clinical care, education and research.

MISSION
Our purpose is to empower the surgeons of tomorrow with the capacity for exemplary evidence based clinical care, critical thinking, creativity, professionalism and a zeal for lifelong learning.

GOALS
1. Establish MacOrtho as a top tier program within the Royal College of Physicians and Surgeons.

2. Establish MacOrtho as leaders in Evidence Based Clinical Care

3. Establish Pride, Purpose and Motivation in MacOrtho
Faculty commitment to residents:

We are committed to creating an environment conducive to the educational needs of the orthopaedic trainee. This education will not only include evidence based clinical practice of medical expert knowledge and skills within the realm of orthopaedic surgery, but will also reflect the core guiding CanMEDS competencies of professionalism, communication, collaboration, scholarship, management and health advocacy. We will demonstrate a sound understanding of the MacOrtho orthopaedic program objectives and to individualize these objectives where possible, to the individual learning needs of our trainees.

We will strive to create a learning environment free from intimidation and harassment and to uphold the codes of conduct at each hospital site and McMaster University as well as the College of Physicians and Surgeons of Ontario position statement on professionalism. We are committed to developing and maintaining positive and respectful relationships with MacOrtho trainees.

We are committed to providing timely discussions of rotation specific goals and objectives and to ensuring that all trainees receive timely and pertinent evaluations of performance within all realms of the CanMEDS competencies in a constructive and fair manner. These evaluations will be consistent with those outlined in the MacORTHO training manual.

We will provide graded responsibilities to orthopaedic trainees throughout their training while acknowledging and conforming to PAIRO guidelines. At all times we will provide adequate support and back-up commensurate with the needs and requirements of the orthopaedic trainee.

Above all, we will create an environment conducive to the development of a professional, competent and skillful orthopaedic surgeon.
Resident Expectations

Residents will be expected to be motivated and dedicated in applying themselves to the mastery of orthopaedic surgery including all CanMEDS competencies: medical expert, collaborator, communicator, professional, health advocate, manager and scholar. This includes continual case-based study and appropriate preparation for operative and clinic based experiential learning within the context of evidence based clinical practice.

Residents will be expected to demonstrate a collegial and professional attitude at all times, and specifically towards a graduated learning and responsibility process. They will conform to the codes of conduct of each hospital site and McMaster University as well as the College of Physicians and Surgeons of Ontario position statement on professionalism. Residents are expected to contribute to the creation of a healthy environment for learning, free from intimidation and harassment.

Residents will be expected to discuss rotation specific goals and objectives at the onset of every rotation and to provide constructive timely evaluation to their respective faculty.

Residents are expected to demonstrate compassionate, professional and exemplary clinical care in the context of a multidisciplinary team environment.

Residents are expected to seek appropriate back-up from faculty or seniors in the face of clinical uncertainty beyond their level of training or comfort.

Residents are expected to provide education for faculty, their peers and medical students. This can take the form of formal teaching sessions or educational clinical experiences.

Residents are in training to become life-long learners and practitioners of the art and science of orthopaedic surgery.
Orthopaedic Contact Information

Academic Divisional Head: Dr. Mohit Bhandari Contact: 905 527 4322 ext. 44590
Program Director: Dr. Brad Petrisor Contact: 905 527 4322 ext. 46607 or 44648
Program Coordinator: Candice Stroud Contact: 905 527 4322 ext. 46607
Associate PD Dr. Michelle Ghert Contact: 905 387-9495 ext 64089
Fellowship Director: Dr. Dale Williams Contact: 905 527 4322 ext. 44165
Mentorship Director: Dr. Ben Deheshi Contact: 905 387 9495 ext. 66358

Clinical CTU Directors:

HGH Dr. Brian Drew Contact: 905 527 4322 ext. 44636
JHCC Dr. Mitch Winemaker Contact: 905 570-8884
MUMC Dr. Devin Peterson Contact: 905 521 2100 ext. 73177
SJH Dr. Lou Saunders Contact: (905) 573-3574

SITE LEADS

HGH Dr. Brian Drew Contact: 905 527 4322 ext. 44636
JHCC Dr. Devin Peterson Contact: 905 521 2100 ext. 73177
SJH Dr. Antony Adili Contact: 905 522 1155 ext. 32013

Surgery Contact Information

Academic Chair Dr. Susan Reid Contact: 905 521-2100 ext 73696
Associate Chair of Education Dr. Stephen Kelly Contact: 905 521 2100 ext. 76396
Chief of Orthopaedics HHSC Dr. Sarah Burrow Contact: 905 521 2100 ext. 73177
Chief of Surgery SJH Dr. Anthony Adili Contact: 905 522 1155 ext. 32013
Chief of Surgery HHSC Dr. Wes Stevens Contact: 905 521-2100 ext. 73670
Associate Chair for Research Dr. Mohit Bhandari Contact: 905 527 4322 ext. 44590
Departmental Manager Cathy Turner Contact: 905 522 1155 ext. 35239
Ombudsman Dr. Frank Baillie Contact: 905 521-2100 ext 44237
Faculty guide

Guide for Canadian medical school educators

- Downloadable videos and teaching aids
- Media rich cases with trigger questions
- Group activities that support PBLs/CBLs
- Just-in-time aids
FOR TRAINING PURPOSES ONLY: The *CMPA Good Practices Guide* learning materials are intended to draw attention to the various patient safety and medico-legal risks that can arise in the course of clinical practice and the strategies for minimizing such risks; they should not be considered to reflect common clinical care. Text cases, videos, and scenarios may intentionally portray examples of poor patient and provider interactions or contain incorrect medical information to demonstrate how lapses in medical judgment and poor communication might negatively affect patient outcomes.

The sole purpose of the *CMPA Good Practices Guide*, including its supporting faculty assets, is to provide a training resource for use by trainees and professors at the faculties of medicine in Canada and for health professional training programs at post-secondary institutions in Canada.

The information contained in this learning material is for general educational purposes only and is not intended to provide specific professional medical or legal advice, or to constitute a “standard of care” for Canadian healthcare professionals. The use of CMPA learning resources is subject to the foregoing as well as the CMPA’s Terms of use.

**Your feedback is important**
If you have suggestions for improving this resource or questions about faculty development, please contact us at education@cmpa.org.

© The Canadian Medical Protective Association 2013
# Contents

**Introducing the CMPA Good Practices Guide**  
Teaching patient safety and risk management  
The teachable moment — Bedside and point-of-care teaching

**How the CMPA Good Practices Guide is organized**  
Domains and topics  
Navigating the Guide  
Searching the Guide  
Student section  
Faculty section  
Activity sheets

**Using the resources in the CMPA Good Practices Guide**  
About the use of case studies  
Videos and trigger questions  
Text cases and trigger questions  
Role-play scenarios  
Narrative and storytelling

**Appendix —**  
Mapping the CMPA Good Practices Guide to CanMEDS Roles and CanMEDS-FM Roles
Introducing the CMPA Good Practices Guide

The CMPA Good Practices Guide is an online resource intended to contribute to safer medical practice and reduce medico-legal risks.

The Guide has been developed for:
- medical students
- residents
- teaching faculty

Other healthcare professionals may also find its content useful.

This resource is designed as a self-study tool to assist medical trainees in preparing for their medical examinations while also helping them to comprehend the medico-legal implications of medical practice. The content of the Guide is organized in 7 themes: Patient safety, Teams, Communications, Managing risk, Human factors, Adverse events, and Professionalism. The CMPA Good Practices Guide is interactive and features 124 case studies drawing from the Association’s research and analysis of cases. It includes over 40 downloadable videos and animations, numerous quizzes, as well as 150 good practices. Over 115 concepts are also included to help illustrate key processes leading to good practices.

The companion Faculty guide explains the CMPA Good Practices Guide and provides suggestions on how medical educators can effectively use the resources available within it.

The Guide is available to all Canadian educators who are responsible for teaching medical trainees. Medical schools are encouraged to contact the CMPA to learn more about how faculty can use the Guide to teach patient safety and risk management.
Teaching patient safety and risk management

Good practices begin in training. Canadian medical schools and accrediting bodies recognize the importance of improving education in patient safety and risk management. Such teaching should weave throughout course work and clinical rotations. Much of medicine is taught at the bedside or point of care. When possible, these ‘teachable moments’ should include discussions of safer care and reduction of risk.

Some clinical exposure is required to understand the relevance of certain patient safety and risk management topics. More training should be provided as clinical experience increases. For example, students on a clinical rotation will better appreciate the importance of learning about handovers of care.

The following suggestions may help faculty to introduce patient safety and risk management.

- Introduce risk management into everyday clinical teaching at the point of care or bedside by:
  - pointing out vulnerabilities in the processes of care
  - discussing pitfalls in diagnosis, including the role of cognitive and affective biases
- Test for knowledge, skills, and attitudes related to the topics of the Guide.
- Make time to debrief individual and team activities after a clinical case or at the end of a shift or the day. Highlight what was done well, what was learned, and what could be done differently next time.
- Create or participate in inter-professional patient safety rounds.
- Teach how to constructively participate in protected quality improvement reviews.
- During an academic half day, discuss some of the relevant case studies available in the Faculty section (text cases, videos, role-plays, and simulations).
- Encourage trainees to explore the CMPA Good Practices Guide. Assign completion of the eLearning activities included in the Guide.
- Regularly review a patient safety article from the Guide at a journal club.
- Provide acknowledgement for the best quality improvement suggestion.
- Encourage or mandate trainees to complete a quality improvement project with faculty support.
- Incorporate more patient safety and risk management topics, including consent for treatment and documentation of care, into scenarios in simulation centres.
**The teachable moment — Bedside and point-of-care teaching**

Much of medicine is taught during student-trainees’ encounters with real patients.

Teachers can use these moments to expand on the presentation and management of the patient in more detail. This is an opportunity to demonstrate professional behaviour and communication skills, and to provide insight gained from knowledge and experience of patient safety and risk management.

Principles in bedside and point-of-care teaching:

- Consider patient comfort a priority.
- Include the patient in the discussion if possible.
- Respect patients’ privacy.
- Focus safety teaching on 1 or 2 key points.
- In the presence of a patient, explain any medical terms and jargon.
- Conduct debriefs related to care away from the patient.
How the CMPA Good Practices Guide is organized

Domains and topics

The CMPA Good Practices Guide is organized using the framework of The Safety Competencies from the Canadian Patient Safety Institute. The topics of the Guide also align with the CanMEDS and CanMEDS-FM frameworks. An additional domain on professionalism has been added to this resource recognizing the importance of this subject in risk management. The Appendix provides additional information on how the Guide is mapped to CanMEDS roles.

- **PATIENT SAFETY**
  - Understanding harm
  - Just culture
  - Systems
  - Accountability
  - Quality and safety improvement
  - Governance
  - Legal liability

- **HUMAN FACTORS**
  - Defining human factors
  - Challenge to diagnosing
  - Cognitive biases
  - Situational awareness
  - Equipment and technology
  - Other workplace factors
  - Human factors engineering

- **PROFESSIONALISM**
  - Professionalism in practice
  - Being honest
  - Being respectful
  - Behaviour
  - Respecting boundaries
  - Supporting colleagues

- **COMmUNICATION**
  - Patient-centred communication
  - Privacy and confidentiality
  - Informed consent
  - Informed discharge
  - Team communication
  - Handovers
  - Consultations and referrals
  - Documentation

- **TEAMS**
  - Healthcare teams
  - Safe teamwork
  - Delegation and supervision
  - Medico-legal lessons

- **ADVERSE EVENTS**
  - Errors and matters of judgment
  - Disclosure
  - Quality improvement
  - Managing stress

- **MANAGING RISK**
  - The diagnostic process
  - Diagnostic tips
  - Reducing risk in surgery
  - Medication risks

---

1 Competencies: Enhancing Patient Safety Across the Health Professions. Ottawa, ON: Canadian Patient Safety Institute; 2008. (see www.patientsafetyinstitute.ca)
Navigating the Guide

The CMPA Good Practices Guide has two sections: one for medical trainees, the other for faculty.

Toggle between the faculty and student content by clicking on the tabs.

Each domain is accessed using the tabs at the top of the page – Patient safety, Teams, Communication, Managing risk, Human factors, Adverse events, and Professionalism.

Searching the Guide

Review the topics for each domain by rolling over the applicable tab in the navigation bar, displaying a menu of topics for that domain.

The Guide can be searched by domain, topic, CanMEDS or CanMEDS-FM role, type of specialty, and by key words.
Student section

Rolling over the tab of each domain shows the contents of that domain.

Each domain or topic includes the following information to reinforce learning:

- rollovers for definitions of key medico-legal terms and references, as well as a complete glossary
- “Key concepts” and “Good practices” for each topic
- links to the section “Want to learn more” for viewing additional material

Students can review many case examples as stand-alone content. The learning tool includes animations and audio. Each domain includes quiz questions which provide immediate feedback on key learning points.

Several CMPA eLearning modules are linked to the Guide. These contain more case studies and content. Statements of completion for trainees are available after completing a quiz found in these modules.

Landmark Canadian legal cases highlight important court decisions that have influenced how medicine is practised in Canada.

Faculty section

The Faculty section of the Guide provides a range of educational materials and activities to teach the core content found in the Student section. Activities are designed for students with different learning styles and at different levels of training.

- All materials are available for use directly from the website or can be downloaded to Apple or PC computers.
- Links from the Faculty section back to core content for students are clearly labeled.
- Resources enable group interactivity, problem-solving, and case-based learning.
- Each activity can be adapted to allow trainees to complete more research, interact through online activities, and review additional material as necessary.
- Activities can be used in different types of group sessions. These include role-plays and narrative exercises.
- “Quick activities” can be used for just-in-time teaching or point-of-care teaching at the bedside.
The following is a screenshot of a portion of the resources available in the Faculty section of the Communications domain.

**Team communication**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Media</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student prep - Core content</td>
<td>Student content</td>
<td></td>
</tr>
<tr>
<td>Team miscommunication</td>
<td>Video / Transcript</td>
<td>Trigger questions (pdf)</td>
</tr>
<tr>
<td>Speaking up on obstetrics rotation</td>
<td>Role play scenario (pdf)</td>
<td></td>
</tr>
<tr>
<td>Speaking up in surgery</td>
<td>Role play scenario (pdf)</td>
<td></td>
</tr>
<tr>
<td>Speaking up in an office</td>
<td>Role play scenario (pdf)</td>
<td></td>
</tr>
</tbody>
</table>

**Handovers**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Media</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student prep - Core content</td>
<td>Student content</td>
<td></td>
</tr>
<tr>
<td>Office based handover</td>
<td>Video / Transcript</td>
<td>Trigger questions (pdf)</td>
</tr>
<tr>
<td>Hospital handover by resident</td>
<td>Video / Transcript</td>
<td>Trigger questions (pdf)</td>
</tr>
</tbody>
</table>

Icons and a text label identify the types of activities for each domain.

- **Short video vignettes of real cases engage learners.**
- **Quick activities prompt just-in-time discussion.**
- **Trigger questions accompany each video, stimulate discussion, and facilitate reflective learning.**
- **Role-play scenarios encourage students to explore strategies for dealing with complex situations.**
- **Text cases and trigger questions allow students to consider real-life cases.**
- **Narrative exercises provide students with opportunities to reflect on, and learn from, their experiences.**
Activity sheets

The Faculty section of the CMPA Good Practices Guide provides activity sheets in ready-to-use PDF format to enhance teaching by providing additional information and instructions. Each activity sheet includes content related to a domain and topic area, and if appropriate, other domains and topics. Keywords are available for use as metadata if activities are downloaded to a school’s Learning Management System (LMS). The activity summary, trigger questions, and suggestions for faculty provide a brief description of the activity.

**TITLE** Trigger questions for “Hospital handover by resident”

**DOMAIN AND TOPIC** Communication>Handovers

**KEYWORDS** handovers, resident, internal medicine, intra-professionalism

**ACTIVITY SUMMARY**
The short video “Hospital handover by resident” portrays a poorly performed handover between shifts. These supporting trigger questions and suggestions to faculty focus on helping students to identify what went wrong, and how to improve the handover.

**TRIGGER QUESTIONS**
1. What factors contributed to this poorly performed handover?
2. What measures could the residents have taken to prevent this adverse event?
3. How could a poor handover contribute to an adverse event?
4. How would you feel if you received this information on handover?

**SUGGESTIONS TO FACULTY**
In small groups, have students re-write the handover script to make it more effective using a structured communication tool and interactive questioning. Have one group act out their script for the rest of the group.

© The Canadian Medical Protective Association
Using the resources in the CMPA Good Practices Guide

About the use of case studies

The Guide contains several types of resources for teaching, including case studies. The use of case studies is recognized as essential in developing knowledge, skills, and proper attitudes. Case studies in risk management expose trainees to real-world clinical situations, challenges, and dilemmas they will eventually face in practice.

The *CMPA Good Practices Guide* includes many case studies. These are considered valuable teaching aids.

- Case selection is more effective if customized to the practice type, level of training, and the care environment.
- Discuss cases involving a range of health professionals to underscore issues related to teamwork.
- Consider system-team-provider-patient factors that contribute to events.
- Cases involving residents and medical students are more engaging for trainees.
- Address issues of delegation and supervision.
- The complexity of the case should increase along with the clinical experience of the trainee.

**USING CASES FROM CLINICAL EXPERIENCE**

Whether clinical cases are being used by a faculty member or a trainee in presentations and workshops, the following are important:

- Never use open medico-legal cases, meaning cases which are still active.
- Carefully mask the identity of patients and other providers to protect everyone’s privacy. This includes removing demographic information from diagnostic imaging and laboratory test reports.
- If a case is being used to teach medical or surgical disease and management, consider adding safety and risk management principles and pitfalls. This could also include how to appropriately document the care provided in the medical record.
- Include success stories related to patient safety and risk management, as well as cases of near misses (termed “incidents” in Québec) that have resulted in improvements in care.
Videos and trigger questions

It is often said “If a picture is worth a thousand words, a video is worth a million.”

VIDEOS

› encourage reflection and discussion
› can illustrate potentially stressful, emotionally charged healthcare communications
› can build on clinical experiences by including ethical dilemmas

TEACHING TIPS

› Review the appropriate student core content in the Guide.
› Describe the main theme of the video to be viewed.
› Ask the students to watch the video specifically identifying points of interest or reflections (e.g. identify what you think went well in this physician/patient interaction, what could be done better, etc.).
› Discuss the trigger questions, adding your own, to prompt reflection and discussion.

ADDITIONAL SUGGESTIONS

› Encourage discussion from all those attending.
› Reserve your own reflections until after the trainees have commented.
› Have the trainees re-write the scripts of the video scenario.
› Involve the trainees in role-play based on the video scenario.

TECHNICAL

The short video vignettes can be run directly from the Internet or downloaded. Each is accompanied with a set of suggested trigger questions to facilitate discussion. All are available in a ready-to-use PDF format suitable for downloading and printing.

CAUTION

The CMPA Good Practices Guide learning materials are intended to draw attention to patient safety and medico-legal risks that can arise in the course of clinical practice and to the strategies for minimizing such risks; they should not be considered to reflect common clinical care.

Text cases, videos, and scenarios may intentionally portray examples of poor patient and provider interactions, or contain incorrect medical information to demonstrate how lapses in medical judgment and poor communication might negatively affect patient outcomes.
**Working with a large group?**

The think-pair-share technique allows individuals to share their ideas no matter how large the group. The facilitator poses an open-ended question to the audience and provides time for individual reflection. After a minute, learners are asked to pair with a second individual in close proximity and discuss their responses. The facilitator provides several minutes for these pair discussions and then asks for volunteers to share their ideas with the larger group.

---

**Text case and trigger questions**

Text cases with trigger questions address clinical scenarios based on real medico-legal cases from the CMPA. They vary in complexity and may cover several domains or topics. Cases may be used to illustrate:

- specific patient safety or medico-legal risk management lessons
- system failures
- provider performance issues

**TEACHING TIPS**

- Review the appropriate medical trainee core content.
- Develop the educational objectives for your session.
- Review the key content.
- Distribute the text cases to small groups of learners.
- Ask each group to designate a scribe and a reporter.
- Provide sufficient time for each group to address the case(s) and the trigger questions.
- Bring the groups together and have each group’s reporter discuss their observations and possible solutions.
- Review the take-home messages.

**TECHNICAL**

Text scenarios and trigger questions are available in a ready-to-use PDF format suitable for downloading and printing.
Role-play scenarios

Role-playing is a facilitation technique in which learners assume different roles in scenarios conducted in a controlled learning environment. Role-plays can be scripted or unscripted depending on the learners’ knowledge of the subject matter and the educational objective of the role-play.

TEACHING TIPS

Role-plays can be uncomfortable for learners, particularly when they previously have not known each other. To increase learner comfort, role-play is usually best used later in a teaching session after rapport has been developed between the facilitator and learners. Here are a few more tips:

▶ Define the objectives and goals of the role-play. Goals may be facilitator-driven or based on suggestions from the learners related to specific skills or interventions they wish to practice.
▶ Introduce the requirements of role-play, including the need for respectful and constructive comments at all times amongst the participants.
▶ Describe the clinical situation and issues. Videos can also be used to help establish a scenario.
▶ Demonstrate the relevant technique. A facilitator’s willingness to “go first” can reduce anxiety.
▶ Assign roles. Possibilities include:
  - patient and family
  - clinician or medical trainee
  - other health professional
  - observer (if there are large numbers of learners have them work in groups of 3)
▶ Conduct the role-play.
▶ Provide feedback.
  - Usually the clinician or trainee starts. Have the trainees explain what they thought went well and why.
  - The patient goes second. What did the patient think went well? What was it like to be the patient?
  - The observer comments last. Have the observer begin with what went well.
  - Each player should discuss what they found difficult or challenging.
  - Obtain player feedback as to what role players would do differently next time, if faced with a similar situation.
  - Finally, if time allows, replay the scenario using the new strategies or skills.
CHALLENGES

Scenario taking a different direction
Even though a scenario appears tightly controlled, the players may take a different path or direction than intended. Guide the players back on track or end the activity and debrief the group.

Players not understanding the situation
In some cases the role is not understood by the player. This may lead to difficulties for all participants. Support the player who is having the challenge and attempt to guide the role-play to an end. If this cannot be done, then end the role-play and begin the debriefing.

Narrative and storytelling
Writing from a personal point of view about an experience one has lived through is increasingly recognized as a way to encourage reflection, improve self-awareness, and learn from experience. Accordingly, the CMPA Good Practices Guide includes a narrative exercise in each domain.

FUNDAMENTAL STRUCTURE
The use of narrative essays and journaling is used to explore and reflect on many of the themes and concepts introduced in the Guide. Narrative exercises ask students to recall and think about an event they experienced or witnessed. Each narrative should include:

- a description of the event
- an explanation of how this event relates to the theme or topic assigned
- the student’s reflections on the event

<table>
<thead>
<tr>
<th>VARIATIONS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variation 1</td>
<td>This role-play leads to an enhanced understanding of the challenges faced by others on the team.</td>
</tr>
<tr>
<td>Variation 2</td>
<td>The trainees practice with an individual who fully understands the scenario and what is expected. Coaching can happen immediately and then the play continues with the implementation of the feedback.</td>
</tr>
</tbody>
</table>
**Variation 3**
Repetitive role-play
(Groundhog Play!)

Continually repeat the role-play with new actors. Often the scenario is very brief (e.g. lasting 1 to 2 minutes to allow multiple repetitions). This type of role-play is often used in professional training or to explore emotionally charged scenarios. Repeating the same role-play enables the learners to observe a wide range of responses to the same situation. At the end of the exercise the group discusses the different approaches and identifies what worked best.

**Variation 4**
Fishbowl

A fishbowl is simulated by creating a “bowl” for the actors and an area for observers. The audience observes and then comments.

**TECHNICAL**

Role-play text case scenarios, accompanied by specific information for each role in the role-play, are available in a ready-to-use PDF format suitable for downloading and printing.
### Appendix —

**Mapping the CMPA Good Practices Guide to CanMEDS Roles and CanMEDS-FM Roles**

<table>
<thead>
<tr>
<th>MEDICAL EXPERT</th>
<th>COLLABORATOR</th>
<th>HEALTH ADVOCATE</th>
</tr>
</thead>
</table>
| Domain 4: Managing risk  
The diagnostic process  
Diagnostic tips  
Reducing risk in surgery  
Medication risks | Domain 2: Teams  
Healthcare teams  
Safe teamwork  
Delegation and supervision  
Medico-legal lessons | Domain 1: Patient safety  
Understanding harm  
Just culture  
Systems |
| Domain 5: Human factors  
Defining human factors  
Challenge to diagnosing  
Cognitive biases  
Situational awareness  
Equipment and technology | Domain 3: Communication  
Team communication  
Handovers  
Consultations and referrals | Domain 6: Adverse events  
Quality improvement |
| COMMUNICATOR | MANAGER | SCHOLAR |
| Domain 2: Teams  
Safe teamwork  
Medico-legal lessons | Domain 1: Patient safety  
Understanding harm  
Systems  
Accountability  
Quality and safety improvement  
Governance | Domain 2: Teams  
Healthcare teams |
| Domain 3: Communication  
Patient-centred communication  
Privacy and confidentiality  
Informed consent  
Informed discharge  
Team communication  
Handovers  
Consultations and referrals  
Documentation | Domain 2: Teams  
Safe teamwork  
Delegation and supervision | Domain 2: Teams  
Healthcare teams |
| Domain 6: Adverse events  
Disclosure | Domain 3: Communication  
Privacy and confidentiality | Domain 6: Adverse events  
Errors and matters of judgment  
Disclosure  
Managing stress |
| Domain 4: Managing risk  
Medication risks | Domain 5: Human factors  
Other workplace factors  
Human factors engineering | Domain 7: Professionalism  
Professionalism in practice  
Being honest  
Being respectful  
Behaviour  
Respecting boundaries  
Supporting colleagues |
| Domain 5: Human factors  
Situational awareness | Domain 7: Professionalism  
Professionalism in practice  
Being honest  
Being respectful  
Behaviour  
Respecting boundaries  
Supporting colleagues | Domain 7: Professionalism  
Professionalism in practice  
Being honest  
Being respectful  
Behaviour  
Respecting boundaries  
Supporting colleagues |
Acknowledgements
The CMPA appreciates the significant contribution to this resource made by faculty and trainees of Canadian medical schools, health professionals, and legal counsel.

Copyright and use of the CMPA Good Practices Guide and Faculty guide
Material in the CMPA Good Practices Guide and Faculty guide can be shared with trainees, other teachers, and healthcare professionals. The Guide and its accompanying materials are free to use for non-commercial purposes; however, credit should be provided to the CMPA.
The Canadian Medical Protective Association

The CMPA provides its physician members with medico-legal advice, legal assistance related to clinical practice, and risk management education. The CMPA is funded and operated on a not-for-profit basis for physicians, by physicians. Its membership includes most practising physicians in Canada. The Association also provides physicians with an extensive, evidence-based education program on managing risk in practice and providing safer patient care.
**MEDICAL EXPERT**

**Definition:** As Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

**Description:** Physicians possess a defined body of knowledge, clinical skills, procedural skills and professional attitudes, which are directed to effective patient-centered care. They apply these competencies to collect and interpret information, make appropriate clinical decisions, and carry out diagnostic and therapeutic interventions. They do so within the boundaries of their discipline, personal expertise, the healthcare setting and the patient’s preferences and context. Their care is characterized by up-to-date, ethical, and resource-efficient clinical practice as well as with effective communication in partnership with patients, other health care providers and the community. The Role of Medical Expert is central to the function of physicians and draws on the competencies included in the Roles of Communicator, Collaborator, Manager, Health Advocate, Scholar and Professional.

**Key Competencies:** Physicians are able to…
1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care;
2. Establish and maintain clinical knowledge, skills and attitudes appropriate to their practice;
3. Perform a complete and appropriate assessment of a patient;
4. Use preventive and therapeutic interventions effectively;
5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic;
6. Seek appropriate consultation from other health professionals, recognizing the limits of their expertise.

**Enabling Competencies:** Physicians are able to...

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care
   1.1. Effectively perform a consultation, including the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional
   1.2. Demonstrate effective use of all CanMEDS competencies relevant to their practice
   1.3. Identify and appropriately respond to relevant ethical issues arising in patient care
   1.4. Effectively and appropriately prioritize professional duties when faced with multiple patients and problems
   1.5. Demonstrate compassionate and patient-centered care
   1.6. Recognize and respond to the ethical dimensions in medical decision-making
   1.7. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony or advising governments, as needed

2. Establish and maintain clinical knowledge, skills and attitudes appropriate to their practice
   2.1. Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to the physician’s specialty
2.2. Describe the RCPSC framework of competencies relevant to the physician’s specialty

2.3. Apply lifelong learning skills of the Scholar Role to implement a personal program to keep up-to-date, and enhance areas of professional competence

2.4. Contribute to the enhancement of quality care and patient safety in their practice, integrating the available best evidence and best practices

3. **Perform a complete and appropriate assessment of a patient**

   3.1 Effectively identify and explore issues to be addressed in a patient encounter, including the patient’s context and preferences

   3.2 For the purposes of prevention and health promotion, diagnosis and or management, elicit a history that is relevant, concise and accurate to context and preferences

   3.3 For the purposes of prevention and health promotion, diagnosis and/or management, perform a focused physical examination that is relevant and accurate

   3.4 Select medically appropriate investigative methods in a resource-effective and ethical manner

   3.5 Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

4. **Use preventive and therapeutic interventions effectively**

   4.1 Implement an effective management plan in collaboration with a patient and their family

   4.2 Demonstrate effective, appropriate, and timely application of preventive and therapeutic interventions relevant to the physician’s practice

   4.3 Ensure appropriate informed consent is obtained for therapies

   4.4 Ensure patients receive appropriate end-of-life care

5. **Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic**

   5.1 Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to their practice

   5.2 Demonstrate effective, appropriate, and timely performance of therapeutic procedures relevant to their practice

   5.3 Ensure appropriate informed consent is obtained for procedures

   5.4 Appropriately document and disseminate information related to procedures performed and their outcomes

   5.5 Ensure adequate follow-up is arranged for procedures performed

6. **Seek appropriate consultation from other health professionals, recognizing the limits of their expertise**

   6.1 Demonstrate insight into their own limitations of expertise via self-assessment

   6.2 Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal patient care

   6.3 Arrange appropriate follow-up care services for a patient and their family
Definition: As Communicators, physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

Description: Physicians enable patient-centered therapeutic communication through shared decision-making and effective dynamic interactions with patients, families, caregivers, other professionals, and important other individuals. The competencies of this Role are essential for establishing rapport and trust, formulating a diagnosis, delivering information, striving for mutual understanding, and facilitating a shared plan of care. Poor communication can lead to undesired outcomes, and effective communication is critical for optimal patient outcomes. The application of these communication competencies and the nature of the doctor-patient relationship vary for different specialties and forms of medical practice.

Key Competencies: Physicians are able to...
1. Develop rapport, trust and ethical therapeutic relationships with patients and families;
2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues and other professionals;
3. Accurately convey relevant information and explanations to patients and families, colleagues and other professionals;
4. Develop a common understanding on issues, problems and plans with patients and families, colleagues and other professionals to develop a shared plan of care;
5. Convey effective oral and written information about a medical encounter.

Enabling Competencies: Physicians are able to...
1. Develop rapport, trust, and ethical therapeutic relationships with patients and families
   1.1. Recognize that being a good communicator is a core clinical skill for physicians, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence and improved clinical outcomes
   1.2. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy
   1.3. Respect patient confidentiality, privacy and autonomy
   1.4. Listen effectively
   1.5. Be aware and responsive to nonverbal cues
   1.6. Effectively facilitate a structured clinical encounter
2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals
   2.1. Gather information about a disease, but also about a patient's beliefs, concerns, expectations and illness experience
   2.2. Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers and other professionals
3. Accurately convey relevant information and explanations to patients and families, colleagues and other professionals
   3.1. Deliver information to a patient and family, colleagues and other professionals in a humane manner and in such a way that it is understandable, encourages discussion and participation in decision-making
4. Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care
Communicator – cont’d

4.1. Effectively identify and explore problems to be addressed from a patient encounter, including the patient’s context, responses, concerns, and preferences

4.2. Respect diversity and difference, including but not limited to the impact of gender, religion and cultural beliefs on decision-making

4.3. Encourage discussion, questions, and interaction in the encounter

4.4. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care

4.5. Effectively address challenging communication issues such as obtaining informed consent, delivering bad news, and addressing anger, confusion and misunderstanding

5. Convey effective oral and written information about a medical encounter

5.1. Maintain clear, accurate, and appropriate records (e.g., written or electronic) of clinical encounters and plans

5.2. Effectively present verbal reports of clinical encounters and plans

5.3. When appropriate, effectively present medical information to the public or media about a medical issue

COLLABORATOR

Definition: As Collaborators, physicians effectively work within a healthcare team to achieve optimal patient care.

Description: Physicians work in partnership with others who are appropriately involved in the care of individuals or specific groups of patients. This is increasingly important in a modern multiprofessional environment, where the goal of patient-centred care is widely shared. Modern healthcare teams not only include a group of professionals working closely together at one site, such as a ward team, but also extended teams with a variety of perspectives and skills, in multiple locations. It is therefore essential for physicians to be able to collaborate effectively with patients, families, and an interprofessional team of expert health professionals for the provision of optimal care, education and scholarship.

Key Competencies: Physicians are able to…

1. Participate effectively and appropriately in an interprofessional healthcare team;
2. Effectively work with other health professionals to prevent, negotiate, and resolve interprofessional conflict.

Enabling Competencies: Physicians are able to...

1. Participate effectively and appropriately in an interprofessional healthcare team
   1.1. Clearly describe their roles and responsibilities to other professionals
   1.2. Describe the roles and responsibilities of other professionals within the health care team
   1.3. Recognize and respect the diversity of roles, responsibilities and competences of other professionals in relation to their own
   1.4. Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients)
   1.5. Where appropriate, work with others to assess, plan, provide and review other tasks, such as research problems, educational work, program review or administrative responsibilities
   1.6. Participate effectively in interprofessional team meetings
   1.7. Enter into interdependent relationships with other professions for the provision of quality care
   1.8. Describe the principles of team dynamics
   1.9. Respect team ethics, including confidentiality, resource allocation and professionalism
   1.10. Where appropriate, demonstrate leadership in a healthcare team
2. Effectively work with other health professionals to prevent, negotiate, and resolve interprofessional conflict
   2.1. Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
   2.2. Work with other professionals to prevent conflicts
   2.3. Employ collaborative negotiation to resolve conflicts
   2.4. Respect differences, misunderstandings and limitations in other professionals
   2.5. Recognize one’s own differences, misunderstandings and limitations that may contribute to interprofessional tension
   2.6. Reflect on interprofessional team function

**MANAGER**

**Definition:** As Managers, physicians are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

**Description:** Physicians interact with their work environment as individuals, as members of teams or groups, and as participants in the health system locally, regionally or nationally. The balance in the emphasis among these three levels varies depending on the nature of the specialty, but all specialties have explicitly identified management responsibilities as a core requirement for the practice of medicine in their discipline. Physicians function as Managers in their everyday practice activities involving co-workers, resources and organizational tasks, such as care processes, and policies as well as balancing their personal lives. Thus, physicians require the ability to prioritize, effectively execute tasks collaboratively with colleagues, and make systematic choices when allocating scarce healthcare resources. The CanMEDS Manager Role describes the active engagement of all physicians as integral participants in decision-making in the operation of the healthcare system.

**Key Competencies:** Physicians are able to...

1. Participate in activities that contribute to the effectiveness of their healthcare organizations and systems;
2. Manage their practice and career effectively;
3. Allocate finite healthcare resources appropriately;
4. Serve in administration and leadership roles, as appropriate.

**Enabling Competencies:** Physicians are able to...

1. Participate in activities that contribute to the effectiveness of their healthcare organizations and systems
   1.1. Work collaboratively with others in their organizations
   1.2. Participate in systemic quality process evaluation and improvement, such as patient safety initiatives
   1.3. Describe the structure and function of the healthcare system as it relates to their specialty, including the roles of physicians
   1.4. Describe principles of healthcare financing, including physician remuneration, budgeting and organizational funding

2. Manage their practice and career effectively
   2.1. Set priorities and manage time to balance patient care, practice requirements, outside activities and personal life
   2.2. Manage a practice including finances and human resources

© 2005 The Royal College of Physicians and Surgeons of Canada
2.3. Implement processes to ensure personal practice improvement
2.4. Employ information technology appropriately for patient care

3. Allocate finite healthcare resources appropriately
   3.1. Recognize the importance of just allocation of healthcare resources, balancing effectiveness, efficiency and access with optimal patient care
   3.2. Apply evidence and management processes for cost-appropriate care

4. Serve in administration and leadership roles, as appropriate
   4.1. Chair or participate effectively in committees and meetings
   4.2. Lead or implement a change in health care
   4.3. Plan relevant elements of health care delivery (e.g., work schedules)

HEALTH ADVOCATE

Definition: As Health Advocates, physicians responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

Description: Physicians recognize their duty and ability to improve the overall health of their patients and the society they serve. Doctors identify advocacy activities as important for the individual patient, for populations of patients and for communities. Individual patients need physicians to assist them in navigating the healthcare system and accessing the appropriate health resources in a timely manner. Communities and societies need physicians' special expertise to identify and collaboratively address broad health issues and the determinants of health. At this level, health advocacy involves efforts to change specific practices or policies on behalf of those served. Framed in this multi-level way, health advocacy is an essential and fundamental component of health promotion. Health advocacy is appropriately expressed both by individual and collective actions of physicians in influencing public health and policy.

Key Competencies: Physicians are able to...
   1. Respond to individual patient health needs and issues as part of patient care;
   2. Respond to the health needs of the communities that they serve;
   3. Identify the determinants of health of the populations that they serve;
   4. Promote the health of individual patients, communities and populations.

Enabling Competencies: Physicians are able to...

1. Respond to individual patient health needs and issues as part of patient care
   1.1. Identify the health needs of an individual patient
   1.2. Identify opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care

2. Respond to the health needs of the communities that they serve
   2.1. Describe the practice communities that they serve
   2.2. Identify opportunities for advocacy, health promotion and disease prevention in the communities that they serve, and respond appropriately
   2.3. Appreciate the possibility of competing interests between the communities served and other populations

3. Identify the determinants of health for the populations that they serve
   3.1. Identify the determinants of health of the populations, including barriers to access to care and resources
   3.2. Identify vulnerable or marginalized populations within those served and respond appropriately

© 2005 The Royal College of Physicians and Surgeons of Canada
4. Promote the health of individual patients, communities, and populations
   4.1. Describe an approach to implementing a change in a determinant of health of the populations they serve
   4.2. Describe how public policy impacts on the health of the populations served
   4.3. Identify points of influence in the healthcare system and its structure
   4.4. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism
   4.5. Appreciate the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper
   4.6. Describe the role of the medical profession in advocating collectively for health and patient safety

SCHOLAR

Definition: As Scholars, physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

Description: Physicians engage in a lifelong pursuit of mastering their domain of expertise. As learners, they recognize the need to be continually learning and model this for others. Through their scholarly activities, they contribute to the creation, dissemination, application and translation of medical knowledge. As teachers, they facilitate the education of their students, patients, colleagues, and others.

Key Competencies: Physicians are able to…
   1. Maintain and enhance professional activities through ongoing learning;
   2. Critically evaluate information and its sources, and apply this appropriately to practice decisions;
   3. Facilitate the learning of patients, families, students, residents, other health professionals, the public, and others, as appropriate;
   4. Contribute to the creation, dissemination, application, and translation of new medical knowledge and practices.

Enabling Competencies: Physicians are able to...

1. Maintain and enhance professional activities through ongoing learning.
   1.1. Describe the principles of maintenance of competence
   1.2. Describe the principles and strategies for implementing a personal knowledge management system
   1.3. Recognize and reflect learning issues in practice
   1.4. Conduct a personal practice audit
   1.5. Pose an appropriate learning question
   1.6. Access and interpret the relevant evidence
   1.7. Integrate new learning into practice
   1.8 Evaluate the impact of any change in practice
   1.9 Document the learning process

2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions.
   2.1. Describe the principles of critical appraisal
   2.2. Critically appraise retrieved evidence in order to address a clinical question
   2.3. Integrate critical appraisal conclusions into clinical care
3. **Facilitate the learning of patients, families, students, residents, other health professionals, the public and others, as appropriate**

3.1. Describe principles of learning relevant to medical education
3.2. Collaboratively identify the learning needs and desired learning outcomes of others
3.3. Select effective teaching strategies and content to facilitate others' learning
3.4. Demonstrate an effective lecture or presentation
3.5. Assess and reflect on a teaching encounter
3.6. Provide effective feedback
3.7. Describe the principles of ethics with respect to teaching

4. **Contribute to the development, dissemination, and translation of new knowledge and practices**

4.1. Describe the principles of research and scholarly inquiry
4.2. Describe the principles of research ethics
4.3. Pose a scholarly question
4.4. Conduct a systematic search for evidence
4.5. Select and apply appropriate methods to address the question
4.6. Appropriately disseminate the findings of a study

---

**PROFESSIONAL**

**Definition:** As Professionals, physicians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

**Description:** Physicians have a unique societal role as professionals who are dedicated to the health and caring of others. Their work requires the mastery of a complex body of knowledge and skills, as well as the art of medicine. As such, the Professional Role is guided by codes of ethics and a commitment to clinical competence, the embracing of appropriate attitudes and behaviors, integrity, altruism, personal well-being, and to the promotion of the public good within their domain. These commitments form the basis of a social contract between a physician and society. Society, in return, grants physicians the privilege of profession-led regulation with the understanding that they are accountable to those served. ¹

**Key Competencies:** Physicians are able to...

1. Demonstrate a commitment to their patients, profession, and society through ethical practice;
2. Demonstrate a commitment to their patients, profession, and society through participation in profession-led regulation;
3. Demonstrate a commitment to physician health and sustainable practice.

**Enabling Competencies:** Physicians are able to...

1. Demonstrate a commitment to their patients, profession, and society through ethical practice
   1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism
   1.2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence
   1.3. Recognize and appropriately respond to ethical issues encountered in practice
   1.4. Appropriately manage conflicts of interest

---

1.5. Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law
1.6. Maintain appropriate relations with patients.

2. Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation
   2.1. Appreciate the professional, legal and ethical codes of practice
   2.2. Fulfill the regulatory and legal obligations required of current practice
   2.3. Demonstrate accountability to professional regulatory bodies
   2.4. Recognize and respond to others’ unprofessional behaviours in practice
   2.5. Participate in peer review

3. Demonstrate a commitment to physician health and sustainable practice
   3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice
   3.2. Strive to heighten personal and professional awareness and insight
   3.3. Recognize other professionals in need and respond appropriately

These training requirements apply to those who begin training on or after July 1st, 2008.

MINIMUM TRAINING REQUIREMENTS

Five years (60 months) of approved residency training in Orthopedic Surgery. One block of training is defined as a four (4) week rotation. This period must include:

1. Twenty six (26) blocks of foundational surgery training as a junior resident. This must follow the relevant Royal College standards.
   1.1. Minimum of (6) six blocks but no more than 13 blocks as a junior resident in Orthopedic Surgery
   1.2. This foundational surgery training must include a minimum of (1) one block in each of the following:
      1.2.1. Critical care
      1.2.2. A service that provides initial trauma management (such as Emergency Medicine, General Surgery, trauma team, Orthopedic Surgery, or Plastic Surgery)
      1.2.3. General Surgery and/or Vascular Surgery
      1.2.4. Internal Medicine or its relevant subspecialties

2. Thirty nine (39) blocks of further residency training in Orthopedic Surgery

3. The entire residency program must have sufficient exposure to attain the Objectives of Training. This must include:
   3.1. The equivalent of at least six (6) blocks in Pediatric Orthopedic Surgery
   3.2. The equivalent of at least three (3) blocks in each of the following rotations:
      3.2.1. Trauma
      3.2.2. Sports Medicine
      3.2.3. Spine Surgery
      3.2.4. Oncologic Orthopedic Surgery
      3.2.5. The equivalent of at least three (3) blocks of adult reconstruction/arthroplasty in each of the following:
      3.2.5.1. Upper limb
3.2.5.2. Foot and ankle
3.2.5.3. Hip and knee

3.3. The equivalent of at least two (2) blocks of training in Community Orthopedic Surgery
3.4. At least six (6) blocks of this period must be spent as a senior resident in Orthopedic Surgery

NOTES:

Royal College Certification in Orthopedic Surgery requires all of the following:

1. Successful completion of the Surgical Foundations curriculum;
2. Successful completion of the Principles of Surgery examination;
3. Successful completion of the training in Sections 2 and 3 above; and
4. Successful completion of at least one scholarly project related to Orthopedic Surgery, as attested by the Program Director.

The five year program outlined above is to be regarded as the minimum training requirement. Additional year(s) of training may be required by the program director to ensure that clinical competence has been achieved.

REVISED - 2010
Objectives of Training in the specialty of Orthopedic Surgery

2008
VERSION 1.1

This document applies to those who begin training on or after July 1st, 2008.

(Please see also the "Policies and Procedures.")

DEFINITION

In translation from its Greek root the term orthopedic means "straight child." The responsibility of the Orthopedic Surgeon is to maintain and restore proper function of the musculoskeletal system, not only in children but also in patients of all ages.

GOALS

Upon completion of training, a resident is expected to be a competent specialist in Orthopedic Surgery capable of assuming a consultant’s role in the specialty. The resident must acquire a working knowledge of the theoretical basis of the specialty, including its foundations in the basic medical sciences and research. The resident must also demonstrate a satisfactory knowledge of the principles common to all surgical practice.

Residents must demonstrate the requisite knowledge, skills, and attitudes for effective patient-centered care and service to a diverse population. In all aspects of specialist practice, the graduate must be able to address issues of gender, age, culture, ethnicity and ethics in a professional manner.

ORTHOPEDIC SURGERY COMPETENCIES

At the completion of training, the resident will have acquired the following competencies and will function effectively as a:

Medical Expert

Definition:

As Medical Experts, Orthopedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.
Key and Enabling Competencies: Orthopedic Surgeons are able to...

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical and surgical care
   1.1. Perform consultation effectively, including the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional
   1.2. Demonstrate effective use of all CanMEDS competencies relevant to Orthopedic Surgery
   1.3. Identify and appropriately respond to relevant ethical issues arising in patient care
   1.4. Demonstrate ability to effectively and appropriately prioritize professional duties when faced with multiple patients and problems
   1.5. Demonstrate compassionate and patient-centered care
   1.6. Recognize and respond to the ethical dimensions in medical decision-making
   1.7. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony or advising governments, as needed

2. Establish and maintain clinical knowledge, skills and attitudes appropriate to Orthopedic Surgery
   2.1. Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to Orthopedic Surgery
      2.1.1. Musculoskeletal Oncology
         The resident will be able to describe:
         2.1.1.1. Tumour classes and their behaviour:
            2.1.1.1.1. Primary lesions
               2.1.1.1.1.1. Benign
                  2.1.1.1.1.1.1. Latent
                  2.1.1.1.1.1.2. Active
                  2.1.1.1.1.1.3. Aggressive
            2.1.1.1.2. Malignant
            2.1.1.1.2.1. Metastatic lesions
            2.1.1.2. Presentation, medical imaging characteristics and natural history of the most common primary bone tumour types:
               2.1.1.2.1. Chondroid lesions
               2.1.1.2.2. Osteoid lesions
2.1.1.2.3. Fibrous lesions

2.1.1.2.4. Others, including but not limited to, unicameral bone cyst, hemangioma, histiocytosis, lipoma, eosinophilic granuloma, giant cell tumour, aneurysmal bone cyst, ewings sarcoma, adamantinoma, chordoma, hemangiopericytoma, osteoid osteoma, osteoblastoma

2.1.1.3. Presentation, radiologic medical imaging characteristics and natural history of different primary soft tissue tumour types:

2.1.1.3.1. Fibrous lesions

2.1.1.3.2. Lipoid lesions

2.1.1.3.3. Muscle lesions

2.1.1.3.4. Vascular lesions

2.1.1.3.5. Nerve lesions

2.1.1.3.6. Others, including but not restricted to, myxoma, fibrosarcoma, malignant fibrous histiocytoma, pigmented villonodular synovitis, giant cell tumour of tendon sheath, myositis ossificans, tumoral calcinosis

2.1.2. Sports Medicine

The resident will be able to:

2.1.2.1. Explain the anatomy and pathophysiology of acute and chronic Soft Tissue Injury:

2.1.2.1.1. Rotator cuff and elbow tendinopathy

2.1.2.1.2. Low back pain

2.1.2.1.3. Groin injury (tendinopathy)

2.1.2.1.4. Joint instability

2.1.2.1.5. Meniscal injuries of the knee

2.1.2.1.6. Patellofemoral disorders

2.1.2.1.7. Ankle sprain

2.1.2.1.8. Achilles tendon

2.1.3. Community Orthopedics

The resident will be able to:

2.1.3.1. Discuss the spectrum and limitations of practice in a community setting based on resources and geography

2.1.3.2. Explain the structure of health care in a community setting including access to tertiary care, stabilization and investigation of patients for transfer
2.1.4. Hip and Knee

The resident will be able to:

2.1.4.1. Advise patients regarding the non-operative management of hip and knee arthritis; including indications, complications and effectiveness of such treatment

2.1.4.2. Summarize the indications, results and complications of surgery for hip and knee arthritis with respect to age, gender and activity level

2.1.4.3. Describe the principles of hip and knee reconstructive surgery for arthritis including osteotomy, arthrodesis and joint replacement

2.1.4.4. Explain the recovery and rehabilitation following hip and knee replacement

2.1.4.5. Discuss the unique medical problems of the geriatric population

2.1.4.6. Demonstrate detailed knowledge of the following areas:

   2.1.4.6.1. Complicated primary joint arthroplasty (e.g. dysplastic hip, valgus knee)
   2.1.4.6.2. Revision hip and knee replacement surgery
   2.1.4.6.3. Selection of appropriate implants
   2.1.4.6.4. The factors affecting implant survival and function, including design, biomaterials, fixation and wear properties

2.1.4.7. Describe the details of hip and knee reconstructive surgery for arthritis including osteotomy, arthrodesis and joint replacement

2.1.5. Trauma

The resident will be able to:

2.1.5.1. Prioritize injuries in patients with poly trauma

2.1.5.2. Discuss the significance of pelvic fractures

2.1.5.3. Explain the concepts of “damage control orthopedics” vs. “early total care”

2.1.5.4. Recognize and describe the principles of the management of:

   2.1.5.4.1. Isolated limb trauma
   2.1.5.4.2. Fractures, dislocations and fracture dislocation with appropriate splinting
   2.1.5.4.3. Open fractures
   2.1.5.4.4. Intraarticular fracture management
   2.1.5.4.5. Associated soft tissue injury
   2.1.5.4.6. Compartment syndrome
   2.1.5.4.7. Dysvascular limb
2.1.5.4.8. Acute infection
2.1.5.4.9. Malunion, nonunion, late infection
2.1.5.4.10. Segmental bone loss
2.1.5.4.11. Geriatric fractures

2.1.5.5. Describe the following associated conditions:
2.1.5.5.1. Adult respiratory distress syndrome
2.1.5.5.2. DVT
2.1.5.5.3. Fat and pulmonary embolism
2.1.5.5.4. Multiple organ system failure
2.1.5.5.5. Chronic regional pain syndrome
2.1.5.5.6. Non-accidental trauma
2.1.5.5.7. Pathologic fractures

2.1.5.6. Integrate detailed information as demonstrated by an ability to formulate a comprehensive treatment plan for the trauma patient

2.1.6. Pediatric Orthopedics

The resident will be able to:
2.1.6.1. Describe normal musculoskeletal anatomy, growth, and development in the child including common angular and torsional variants
2.1.6.2. Describe the anatomy and pathologic basis of the disorders leading to a limp in a child
2.1.6.3. Explain the mechanisms, patterns, assessment, management, and potential complications related to simple and complex pediatric fractures and dislocations
2.1.6.4. Explain the mechanisms, patterns, assessment, management, and potential complications related to osteomyelitis and septic arthritis
2.1.6.5. Discuss the anatomy, pathology, assessment, and management of complex hip disorders
2.1.6.6. Assess and manage simple fractures, including appropriate analgesia/anesthesia techniques
2.1.6.7. Assess and manage complex pediatric fractures including:
2.1.6.7.1. Physeal injuries
2.1.6.7.2. Compound fractures
2.1.6.7.3. Multiple fractures in trauma
2.1.6.7.4. Compartment syndrome, and neurovascular compromise
2.1.7. Adult Spine
The resident will be able to:

2.1.7.1. Recognize the significance of injury in high-risk spinal conditions such as osteoporosis, inflammatory arthritis, DISH and ankylosing spondylitis

2.1.7.2. Develop an effective differential diagnosis based on information gathered on history and physical examination

2.1.7.3. Discuss the indications for spine surgery relative to the affecting pathophysiology

2.1.7.4. Explain the risks, complications and expected outcomes of common spine procedures

2.1.7.5. Summarize the contemporary spine literature

2.1.7.6. Describe anterior and posterior surgical approaches to the cervical, thoracic and lumbar spine

2.1.7.7. Discuss the basic principles of spine arthrodesis including an understanding of the role of spinal instrumentation and stabilization

2.1.7.8. Recognize emergency conditions (specifically acute cauda equina syndrome, acute neurological deterioration, acute traumatic spinal cord injury) with accurate prioritization

2.1.7.9. Formulate an appropriate pre-operative plan for patients scheduled for surgery

2.1.8. Upper Limb
The resident will be able to recognize and describe:

2.1.8.1. Upper limb fractures and dislocations

2.1.8.2. Degenerative, overuse and traumatic tendon injuries

2.1.8.3. Principles and indications for joint reconstruction of the upper limb

2.1.8.4. Peripheral nerve injuries, entrapments, and chronic regional pain syndromes

2.1.8.5. Infections including those specific to the hand

2.1.8.6. Compartment syndromes

2.1.8.7. Common vascular, inflammatory and congenital conditions

2.1.8.8. Benign neoplasms, including ganglions, and malignant neoplasms

2.1.8.9. Principles and indications for arthroscopy in the shoulder, elbow and wrist

2.1.8.10. Complex periarticular fractures and fracture-dislocations

2.1.8.11. DRUJ and carpal instabilities

2.1.8.12. Brachial plexus and tendon transfers

2.1.8.13. Joint contractures including Dupuytren’s
RPC COMMITTEE
CHAIR
Dr. Bradley Petrisor

ASSOCIATE PROGRAM DIRECTOR
Dr. Michelle Ghert

CTU DIRECTOR
HAMILTON GENERAL HOSPITAL
Dr. Mathew Denkers

CTU DIRECTOR
JURAVINISKI HOSPITAL & CANCER CENTRE
Dr. Mitch Winemaker

MENTORSHIP DIRECTOR
Dr. Ben Deheshi

CTU DIRECTOR
McMaster University Medical Centre
Dr. Devin Peterson

FELLOWSHIP DIRECTOR
Dr. Dale Williams

RAC CHAIR
Dr. Daniel Hodde

RAC EXECUTIVE
DR. MARCIN KOWALCZUK (SR)
DR. TOM WOOD (JR/SR)
DR. COLM MCCARTHY (JR)
DR. NATHAN EVANIEW (SSP)

CTU DIRECTOR
St. Joseph’s Healthcare
Dr. Lou Saunders

COMMUNITY DIRECTOR
Dr. Heather Brien

UG ORTHOPAEDIC DIRECTOR
Dr. Jaydeep Moro
The resident will be able to discuss:

2.1.8.14. Indications for arthroscopy in the shoulder, elbow and wrist
2.1.8.15. Principles of amputations and arthrodesis
2.1.8.16. Unique principles of treatment of skeletal metastases

2.1.9. Foot and Ankle

The resident will be able to:

2.1.9.1. Explain normal and abnormal gait
2.1.9.2. Identify the presence of ulcers, and feet at high risk for ulceration
2.1.9.3. Describe the non-operative management of common foot and ankle pathology
2.1.9.4. Assess and provide a differential diagnosis for, and management plan for common foot and ankle pathologies

2.2. Describe the CanMEDS framework of competencies relevant to Orthopedic Surgery

2.3. Apply lifelong learning skills of the Scholar Role to implement a personal program to keep up-to-date, and enhance areas of professional competence

2.4. Contribute to the enhancement of quality care and patient safety in Orthopedic Surgery, integrating the available best evidence and best practices

3. Perform a complete and appropriate assessment of a patient

3.1. Identify and explore issues to be addressed in a patient encounter effectively, including the patient’s context and preferences

3.2. Elicit a history that is relevant, concise and accurate to context and preferences for the purposes of prevention and health promotion, diagnosis and/or management

3.3. Perform a focused physical examination that is relevant and accurate for the purposes of prevention and health promotion, diagnosis and/or management

3.3.1. Musculoskeletal Oncology

3.3.1.1. The resident will demonstrate the ability to perform a physical examination to assess the following:

3.3.1.2. Size of the tumour and its relationship to fascia
3.3.1.3. Neurovascular and articular involvement
3.3.1.4. Lymphatic involvement
3.3.1.5. Sites of metastatic potential for primary musculoskeletal (MSK) tumours
3.3.1.6. Organs systems likely to metastasize to the MSK system
3.3.1.7. Tumour characteristics including issues specific to age and gender
Orthopaedic Surgery Resident Safety Policy

The residency program recognizes that residents have the right to a safe environment during their residency training. This written policy governs resident safety related to travel, patient encounters, including house calls, after-hours consultations in isolated departments and patient transfers. The policy should allow resident discretion and judgment regarding their personal safety and ensure residents are appropriately supervised during all clinical encounters.

The residency program has developed such policies with issues specific to the discipline. It is our role to act promptly to address identified safety concerns and incidents and to be proactive in providing a safe learning environment.

Residents are responsible to provide information and communicate safety concerns to the program and to comply with safety policies.

- If a resident identifies a personal safety or security breach, it must be reported to their immediate supervisor and/or Program Director to allow resolution of the issue at the local level.
- If a resident feels that his / her own personal safety is threatened, s/he should seek immediate assistance and remove themselves from the situation in a professional manner. The resident should ensure that their immediate supervisor has been notified and/or Program Director, as appropriate.
- The Postgraduate Medical Education (PGME) Office (905-525-9140, extension 22118) is available for consultation during regular work hours, particularly if the Program Director is not available. If an issue arises after regular office hours, where the clinical supervisor and/or Program Director may not be available, contact Security of the institution where the resident is based.

TRAVEL:

For long distance travel for clinical or other academic assignments, residents should ensure that a colleague or the home residency program is aware of their itinerary.

Residents are not to be expected to travel long distances during inclement weather for clinical or other academic assignments. If such weather prevents travel, the resident is expected to contact the program office promptly. Assignment of an alternative activity is at the discretion of the Program Director.

Residents should not be on call the day before long distance travel for clinical or other academic assignments by car. When long distance travel is required in order to begin a new rotation, the
resident should request that they not be on call on the last day of the preceding rotation. If this cannot be arranged then there should be a designated travel day on the first day of the new rotation before the start of any clinical activities.

If travel between sites, in remote areas, is more than 300 km., the resident may be provided with one day of travel time (post call day not included) between sites.

Residents should not drive home after call if they have not had adequate rest. A call room should be available for them.

Residents should not be expected to walk alone for any major or unsafe distances at night. Where such travel on foot is unavoidable, the resident should request a security official of the hospital to accompany him/her.

Residents going to international electives outside of North America must complete the Field Trips and Electives Planning and Approval process to ensure compliance with standards and best practices for the safety of all Postgraduate Trainees. In general; the PGME Office will not approve electives in regions for which the Canadian government has issued a Travel Warning. [http://fhs.mcmaster.ca/postgrad/documents/ElectivesandMacCAREposted052012.pdf](http://fhs.mcmaster.ca/postgrad/documents/ElectivesandMacCAREposted052012.pdf)

**PATIENT ENCOUNTERS:**

Resident must wear their identification badge at all times.

Residents must wash their hands before and after each patient encounter. Hand washing is the single most effective way to prevent the spread of infection and disease. Avoid cross contamination.

Residents should not work alone after hours in health care or academic facilities without adequate support from Security Services. A supervisor or co-worker must be present if patients are seen in the out-patient clinic by the resident. This does not apply if the patient is being seen in an emergency room/ward/intensive care unit/operative suite.

Residents are not expected to work alone at after-hours clinics.

Residents should only telephone patients using caller blocking and should use the health care facility phones and not their personal cellular phone or personal digital assistant. Identify yourself and your department/function (in plain language) when making or answering a call. Be friendly and courteous.

Residents should not assess violent or psychotic patients without the backup of security and an awareness of accessible exits and buzzers. The physical space requirements for management of violent patients must be provided where appropriate.

Our residents do not participate in ambulance patient transfer.
PHYSICAL SAFETY:

Residents should familiarize themselves with the location and services offered by the Occupational Health and Safety Office of the health care facility in which they are training. This includes familiarity with policies and procedures for infection control and protocols following exposure to contaminated fluids, needle stick injuries, and reportable infectious diseases.

http://www.fhs.mcmaster.ca/postgrad/ (See Policies, Communicable Disease Policy, Prevention of Transmission of blood borne pathogens)

Residents who acquire a communicable disease, or incur an injury or other medically related incident during their education program are required to seek medical attention immediately. The incident must be reported and documented by the resident, at the earliest opportunity, to the Faculty of Health Sciences Occupational Health and Safety Office, the appropriate clinical supervisor, Program Director and the Assistant Dean. The Assistant Dean will ensure that appropriate documentation and counseling is provided through the assistance of the Expert Board. Please refer to the McMaster Communicable disease policy and the Housestaff Support Systems manual.


Residents must observe routine practices and additional precautions when indicated such has wearing facial mask with shield, gloves, gown, N95 mask, posted isolation requirement before attending to the patient.

Resident must pass the laser safety course before using the laser and always comply with laser safety usage policy.

Residents must keep their immunizations up to date, including the annual influenza vaccination. Please refer to the McMaster University immunization requirements. Overseas travel immunizations and advice should be sought well in advance when traveling abroad for electives or meetings. Consult the Infectious Disease 3V51-C Clinic at the McMaster site with Dr. Martha Fulford or other similar facility (fees may apply).

Call rooms and lounges provided for residents must be clean, smoke free, located in safe locations, and have adequate lighting, a phone, fire alarms, and smoke detectors. Any appliances supplied are to be in good working order. There must be adequate locks on doors.

Residents working in areas of high and long term exposure to radiation must follow radiation safety policies and minimize their exposure according to current guidelines.

Radiation protective garments (aprons, gloves, neck shields) should be used by all residents using fluoroscopic techniques.
Pregnant residents should be aware of specific risks to themselves and their fetus in the training environment and request accommodations where indicated.

Residents should consult the Occupational Health and Safety Office of the healthcare facility for information when warranted.

**EDUCATIONAL ACTIVITIES/ LEARNING ENVIRONMENT/ PROFESSIONAL SAFETY:**

Learning environments must be free from intimidation, harassment, and discrimination. If you observe such behavior discuss/report your observation right away to either: the individual involved, a clinical supervisor, a representative of PARO, your Program Director, a Department or Division Head. If in doubt, or if a resolution does not occur you are encouraged to file a grievance to the Assistant Dean, PGME. Please refer to the the Housestaff Support Systems manual.


When a resident’s performance is affected or threatened by poor health or psychological conditions, the resident should be placed on a leave of absence and receive appropriate support. These residents should not return to work until an appropriate assessor has declared them ready to assume all of their resident duties, including call.

Some physicians may experience conflicts between their ethical or religious beliefs and the training requirements and professional obligations of physicians. Resources should be made available to residents to deal with such conflicts via the PGME Office. Residents are encouraged to discuss with the Program Director.

Programs are bound by PARO contract allowances for religious and other statutory holidays.

The PGME Office and training program should promote a culture of safety in which residents are able to report and discuss adverse events, critical incidents, ‘near misses’, and patient safety concerns without fear of punishment.

Residency program committee members must not divulge information regarding residents. It is the responsibility of the residency Program Director to make the decision and to disclose information regarding residents (e.g. personal information and evaluations) outside of the residency program committee and to do so only when there is reasonable cause. The resident file is confidential.

With regard to resident files, programs must be aware of and comply with the Freedom of Information and Protection of Privacy Act (**FIPPA**). Programs can obtain guidance about **FIPPA** issues from the McMaster University Secretariat web site.

[http://www.mcmaster.ca/univsec/fippa/fippa.cfm](http://www.mcmaster.ca/univsec/fippa/fippa.cfm)

Personal Information as per **FIPPA** means identifiable individual information, including:

- Information related to race, national or ethnic origin, colour, religion, age, sex, sexual orientation or marital or family status of an individual,
• Information related to education or the medical, psychiatric, psychological, criminal or employment history of the individual or information relating to financial transactions an individual has been involved in,
• Any identifying number, symbol or other particular assigned to the individual,
• The address, telephone number, fingerprints or blood type of the individual,
• The personal opinions or views of the individual,
• Correspondence sent to an institution by the individual that is implicitly or explicitly of a private or confidential nature, and replies to that correspondence,
• The views or opinions of another individual about an individual, and
• The individual’s name where it appears with other personal information about the individual.

Resident feedback and complaints must be handled in a manner that ensures resident anonymity, unless the resident explicitly consents otherwise. However, in the case of a complaint that must be dealt with due to its severity or threat to other residents, staff or patients, a Program Director may be obliged to proceed, against the complainant’s wishes. In general, the Program Director may serve as a resource and advocate for the resident in the complaints process.

Residents are insured for professional liability by the Canadian Medical Protection Association, and must register [http://www.cmpa-acpm.ca/cmpapd04/docs/membership/com_how_to_apply-e.cfm](http://www.cmpa-acpm.ca/cmpapd04/docs/membership/com_how_to_apply-e.cfm) before starting your residency training. Formalized procedures are established to ensure evidence of this liability protection on the goals and objectives for each specific training rotation.

The Postgraduate Trainee should go to the nearest Emergency Room and **identify themselves as a Resident / Clinical Fellow and request to be seen on an urgent basis.** The Postgraduate Trainee must complete, within **24 hours**, an Injury/Incident Report (forms should be available in the local Emergency Room).

In Ontario - The injury/incident form should be submitted to the hospital where the injury took place. That hospital will be responsible for administering the claim.

**Responsibility of the Program**

To ensure information about occupational safety is available for clinical trainees at all sites.

To ensure specialty and site specific orientation sessions are available.

To follow-up with Health Centres if a concern re: trainee safety arises so issues can be addressed in a timely fashion.

**Responsibility of the resident/fellow**

It is the responsibility of the trainee to participate in required safety sessions, which include Workplace Hazardous Materials Information and Safety (WHMIS), Fire Safety (as required), etc. and abide by the Safety codes of the designated area where s/he is training. This includes dress codes, particularly as they relate to safety.
Radiation Safety

Residents working in areas of high and long term exposure to radiation must follow radiation safety policies and minimize their exposure according to current guidelines. Radiation protective garments (aprons, gloves, neck shields) should be used by all residents using fluoroscopic techniques. Pregnant residents should be aware of specific risks to themselves and their fetus in the training environment and request accommodations where indicated. Residents should consult the Occupational Health and Safety Office for information.

A TLD request form AND a Radiation Worker letter are completed by the program at the beginning of the academic year who needs TLDs

- The forms are forwarded to Radiology (Noella Peterson) they are ordered
- Once a resident is in the system, they will continue to receive TLDs until they are cancelled (for residents, this will be at the end of their residency)
- TLDs are changed every 3 months and sent back to the company for a dose reading. This is done in January, April, July and October
- Therefore they have to be available for me to collect; if not, they will not get read AND we will be charged for every unreturned TLD
- Any female who wears TLDs can request an extra TLD if she is pregnant; this TLD would be changed every 2 weeks throughout the pregnancy to get a more frequent dose reading; anyone requiring a fetal TLD would have to contact me directly
- Each year for the new group of incoming residents, I will need to have those forms completed and returned to me no later than April 15th in order to have the TLDs for July 1st.
- If I don’t have the requests in time for the July order, they will not get their TLDs until October.

Dosimeters

All orthopedic residents currently have their own set of TLDs. They are ordered/collected/returned by me. They are stored in the OR at MUMC. If you wish to take these TLDs with you to the other sites, that is acceptable (and recommended) as this is the only set you will be assigned.

The TLDs are exchanged quarterly, in January, April, July and October. In order for the TLDs to be useful, they must be sent back on schedule for a dose reading. Please ensure that you return your TLDs to the MUMC OR around the 1st of the month on the months listed above.

If you have any questions please feel free to e-mail the Integrated Radiation Safety Office (IRSO).

L. Noella Peterson  MRT(R), BScApp (MI)
Clinical Education Leader, Radiography
Hamilton Health Sciences, McMaster Site
Diagnostic Imaging, Room 2S21
(905) 521-2100 ext. 75307
e-mail: petersonno@hhsc.ca
3.3.2. Sports Medicine
   3.3.2.1. The resident will demonstrate the ability to assess:
   3.3.2.2. Articular cartilage injury
   3.3.2.3. Complex/revision knee ligaments
   3.3.2.4. Lower extremity malalignment
   3.3.2.5. Multidirectional shoulder instability
   3.3.2.6. Failed shoulder reconstruction
   3.3.2.7. Chronic instability of the elbow
   3.3.2.8. Chronic ankle instability

3.3.3. Hip and Knee Reconstruction
   3.3.3.1. The resident will demonstrate the ability to assess:
   3.3.3.2. Painful or failed hip and knee replacements, particularly with respect to infection
   3.3.3.3. Complications associated with hip and knee reconstructive surgery

3.3.4. Trauma
   The resident will demonstrate the ability to assess:
   3.3.4.1. Isolated limb trauma
   3.3.4.2. The multiply injured patient (including ATLS)
   3.3.4.3. Fractures, dislocations and fracture dislocations
   3.3.4.4. Intraarticular fractures
   3.3.4.5. Pathological fractures
   3.3.4.6. Soft tissue injury
   3.3.4.7. Compartment syndrome
   3.3.4.8. Dysvascular limb
   3.3.4.9. Acute and late bone and soft tissue infection
   3.3.4.10. Malunion, nonunion
   3.3.4.11. Segmental bone loss
   3.3.4.12. Adult respiratory distress syndrome
   3.3.4.13. Deep Venous Thrombosis
   3.3.4.14. Fat and pulmonary embolism
   3.3.4.15. Multiple organ system failure
   3.3.4.16. Chronic regional pain syndrome
3.3.5. Pediatric Orthopedics

The resident will demonstrate the ability to assess:

3.3.5.1. Common overuse syndromes
3.3.5.2. Non-accidental trauma
3.3.5.3. Pathologic fractures
3.3.5.4. Pediatric neoplasia
3.3.5.5. Medical imaging and other diagnostic tools specific to the pediatric population
3.3.5.6. Complex pediatric fractures and dislocations
3.3.5.7. Complex hip disorders
3.3.5.8. The limping child
3.3.5.9. Hips of infants and children including Barlow and Ortolani maneuvers
3.3.5.10. Limb length inequalities
3.3.5.11. Scoliosis

3.3.6. Adult Spine

The resident will demonstrate the ability to perform a specific and complete physical exam for the entire spinal column and associated neurological structures, with an emphasis on the assessment of deformity and dysfunction for the individual patient

3.3.6.1. Demonstrate the ability to interpret contemporary spinal imaging

3.3.7. Upper Limb

The resident will demonstrate the ability to assess:

3.3.7.1. Upper limb fractures and dislocations
3.3.7.2. Complex periarticular fractures and fracture-dislocations
3.3.7.3. Degenerative, overuse and traumatic tendon injuries
3.3.7.4. Peripheral nerve injuries, and entrapments
3.3.7.5. Complex regional pain syndromes
3.3.7.6. Bone and soft tissue infections including those specific to the hand
3.3.7.7. Compartment syndromes
3.3.7.8. Common vascular, inflammatory and congenital conditions
3.3.7.9. Ganglions and neoplasms
3.3.7.10. DRUJ and carpal instabilities
3.3.7.11. Brachial plexus injuries and tendon transfers
3.3.7.12. Joint contractures including Dupuytren’s
3.3.8. Foot and Ankle
   The resident will demonstrate the ability to assess:
   3.3.8.1. Deformities of forefoot, midfoot, hindfoot and ankle
   3.3.8.2. Normal and abnormal gait
   3.3.8.3. Feet at high risk for ulceration, and the presence of ulcers
   3.3.8.4. Foot and ankle fractures and dislocations

3.4. Select medically appropriate investigative methods in a resource-effective and ethical manner

3.5. Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

4. Use preventive and therapeutic interventions effectively
   4.1. Implement an effective management plan in collaboration with a patient and their family
   4.2. Demonstrate effective, appropriate, and timely application of preventive and therapeutic interventions relevant to Orthopedic Surgery
   4.3. Ensure appropriate informed consent is obtained for therapies
   4.4. Ensure patients receive appropriate end-of-life care

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic
   5.1. Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to Orthopedic Surgery
   5.2. Demonstrate effective, appropriate, and timely performance of therapeutic procedures relevant to Orthopedic Surgery
      5.2.1. Musculoskeletal Oncology
         The resident will be able to perform:
         5.2.1.1. Open biopsy of bone and/or soft-tissue lesion
         5.2.1.2. Stabilization of metastatic disease
         5.2.1.3. Treatment of common benign tumours
      5.2.2. Sports Medicine
         The resident will be able to perform:
         5.2.2.1. Diagnostic and therapeutic joint injections
         5.2.2.2. Diagnostic arthroscopy of the knee and shoulder
         5.2.2.3. Repair of simple and complex tendon ruptures

© 2010 The Royal College of Physicians and Surgeons of Canada. All rights reserved.
5.2.2.4. Diagnostic and operative shoulder, knee and ankle arthroscopy
5.2.2.5. Anterior cruciate ligament reconstruction
5.2.2.6. Ankle ligament reconstruction
5.2.2.7. Patella realignment
5.2.2.8. Lower extremity realignment
5.2.2.9. Shoulder reconstruction for instability
5.2.2.10. Surgical management of rotator cuff pathology

5.2.3. Hip and Knee Reconstruction
The resident will be able to:
5.2.3.1. Perform arthrotomies and aspirations of the hip and knee
5.2.3.2. Manage common post-operative complications in hip and knee reconstruction surgery
5.2.3.3. Pre-operatively plan and perform primary and simple revision hip and knee replacements
5.2.3.4. Perform osteotomies around the hip and knee

5.2.4. Trauma
The resident will be able to:
5.2.4.1. Initially manage fractures and dislocations with appropriate reduction and splinting
5.2.4.2. Perform technical skills involved in ATLS protocol as outlined in the most current ATLS manual
5.2.4.3. Manage compartment syndrome
5.2.4.4. Manage acute infection
5.2.4.5. Perform techniques of fracture fixation and soft tissue management including open fractures
5.2.4.6. Perform intramedullary nailing of long bone fractures
5.2.4.7. Perform open reduction and internal fixation of diaphyseal, metaphyseal and articular fractures and dislocations
5.2.4.8. Perform techniques of external fixation for certain injuries, including intra-articular fractures with poor or compromised soft-tissues (knee and ankle joints), pelvic fractures, distal radius fractures, knee dislocations
5.2.4.9. Plan and surgically manage malunion, nonunion and chronic infection of bones
5.2.5. Pediatric Orthopedics
The resident will be able to:

5.2.5.1. Perform percutaneous pinning of fractures
5.2.5.2. Apply skin and skeletal traction
5.2.5.3. Apply a Pavlik harness
5.2.5.4. Biopsy for suspected pediatric neoplasia
5.2.5.5. Apply pediatric casts, including a hip spica cast
5.2.5.6. Develop a non operative treatment of children’s clubfoot

5.2.5.7. Operatively manage:

5.2.5.7.1. Septic arthritis including arthrogram and arthrotomy
5.2.5.7.2. Osteomyelitis
5.2.5.7.3. Slipped capital femoral epiphysis

5.2.5.8. Manage simple and complex pediatric fractures including:

5.2.5.8.1. Physeal injuries
5.2.5.8.2. Compound fractures
5.2.5.8.3. Multiple trauma
5.2.5.8.4. Compartment syndrome, and neurovascular compromise

5.2.6. Adult Spine
The resident will be able to demonstrate proficiency in:

5.2.6.1. Patient positioning, prepping, and draping for anterior and posterior spine surgery
5.2.6.2. Application of external fixation devices (tongs, halos)
5.2.6.3. Bone graft harvesting techniques
5.2.6.4. Posterior spinal approaches
5.2.6.5. Management of common post-operative complications
5.2.6.6. Performing a primary lumbar discectomy for relief of radicular symptoms/signs
5.2.6.7. Performing a primary cervical, thoracic, lumbar laminectomy either for urgent or elective decompression of central or peripheral neurologic structures
5.2.6.8. Performing a primary posterior instrumented lumbar fusion
5.2.6.9. Closed reduction techniques
5.2.7. Upper Limb

The resident will be able to demonstrate proficiency in:

5.2.7.1. Splinting
5.2.7.2. Diagnostic and therapeutic injections of the upper limb
5.2.7.3. Closed and open reduction techniques for common upper limb fractures and dislocations
5.2.7.4. Management of intra-articular and periprosthetic fractures of the upper limb
5.2.7.5. Management of scaphoid non-union
5.2.7.6. Corrective osteotomy of the distal radius
5.2.7.7. Arthroplasty
   5.2.7.7.1. Primary shoulder hemiarthroplasty
   5.2.7.7.2. Radial head
   5.2.7.7.3. Interpositional arthroplasty – CMC, distal radioulnar joint
5.2.7.8. Removal of an infected prosthesis
5.2.7.9. Arthroscopy of the upper limb
5.2.7.10. Loose body removal
5.2.7.11. Amputations – traumatic and elective
5.2.7.12. Treatment of joint contractures
   5.2.7.12.1. Adhesive capsulitis
   5.2.7.12.2. Elbow
   5.2.7.12.3. Dupuytren’s disease
5.2.7.13. Arthrodeses
   5.2.7.13.1. Wrist
   5.2.7.13.2. Digits
5.2.7.14. Joint stabilization
   5.2.7.14.1. Open/Arthroscopic Shoulder Stabilization
   5.2.7.14.2. Acromioclavicular Instability – acute and chronic
   5.2.7.14.3. Elbow or carpal dissociations
5.2.7.15. Tendon rupture repair and reconstruction
   5.2.7.15.1. Rotator cuff
   5.2.7.15.2. Distal biceps
   5.2.7.15.3. Extensor Pollicis Longus
5.2.7.16. Common surgical exposures to the upper limb
5.2.7.17. Surgical management of:
   5.2.7.17.1. Compartment syndromes
   5.2.7.17.2. Nerve entrapment syndromes
   5.2.7.17.3. Ganglions
   5.2.7.17.4. Infections

5.2.8. Foot and Ankle
The resident will be able to demonstrate proficiency in:
   5.2.8.1. Local anesthetic blocks
   5.2.8.2. Surgical approaches for hindfoot, midfoot, forefoot and ankle
   5.2.8.3. Diagnostic and therapeutic injections of foot and ankle joints
   5.2.8.4. Management of diabetic/Charcot foot
   5.2.8.5. Management of ischemic/gangrenous foot
   5.2.8.6. Forefoot reconstruction
   5.2.8.7. Management of foot and ankle fractures
   5.2.8.8. Treatment of arthritis involving ankle, subtalar, midfoot and forefoot joints
   5.2.8.9. Treatment and management of foot and ankle tendinopathies
   5.2.8.10. Management of complications of foot and ankle surgery

5.3. Ensure informed consent is obtained for procedures
5.4. Document and disseminate information related to procedures performed and their outcomes
5.5. Ensure adequate follow-up is arranged for procedures performed

6. Seek appropriate consultation from other health professionals, recognizing the limits of their expertise
   6.1. Demonstrate insight into their own limitations of expertise
   6.2. Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal patient care
   6.3. Arrange appropriate follow-up care services for a patient and their family
      6.3.1. Describe the limitations of practice in a community setting based on resources and geography
      6.3.2. Demonstrate appropriate transfer of care of a patient from community to tertiary care
Communicator

**Definition:**

As Communicators, Orthopedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

**Key and Enabling Competencies: Orthopedic Surgeons are able to...**

1. **Develop rapport, trust, and ethical therapeutic relationships with patients and families**
   1.1. Recognize that being a good communicator is a core clinical skill for physicians, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence and improved clinical outcomes
   1.2. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy
   1.3. Respect patient confidentiality, privacy and autonomy
   1.4. Listen effectively
   1.5. Be aware and responsive to nonverbal cues
   1.6. Facilitate a structured clinical encounter effectively

2. **Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals**
   2.1. Gather information about a disease, but also about a patient’s beliefs, concerns, expectations and illness experience
   2.2. Recognize the emotional stress for patients and families faced with orthopedic conditions and their associated surgical management, particularly in the treatment of children
   2.3. Seek out and synthesize relevant information from other sources, such as a patient’s family, caregivers and other professionals

3. **Convey relevant information and explanations accurately to patients and families, colleagues and other professionals**
   3.1. Deliver information to a patient and family, colleagues and other professionals in a humane manner and in such a way that it is understandable, encourages discussion and participation in decision-making
   3.2. Demonstrate effective, age-appropriate communication of treatment plans to pediatric patients
   3.3. Demonstrate cooperation and communication between health professionals involved in the care of individual patients such that consistent messages are delivered to patients and their families
4. Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care

4.1. Identify and explore problems to be addressed from a patient encounter effectively, including the patient’s context, responses, concerns, and preferences

4.2. Respect diversity and difference, including but not limited to the impact of gender, religion and cultural beliefs on decision-making

4.3. Encourage discussion, questions, and interaction in the encounter

4.4. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care

4.5. Address challenging communication issues effectively, such as obtaining informed consent, delivering bad news, and addressing anger, confusion and misunderstanding

4.5.1. Obtain informed consent for surgical procedures, appreciating alternative means of achieving consent if the patient is unable to provide consent, on the grounds of age, mental status or other disqualifiers

4.6. Discuss advanced directives and end-of-life issues with patients and families

5. Convey effective oral and written information about a medical encounter

5.1. Maintain clear, concise, accurate and appropriate records (e.g., written or electronic) of clinical encounters and plans

5.1.1. Write well-organized and legible orders and progress notes

5.1.2. Complete concise hospital discharge summaries promptly

5.1.3. Write well-organized letters, providing clear direction to the referring physician, other health professionals, and third party agents (e.g. insurance boards) where indicated

5.2. Present verbal reports of clinical encounters and plans effectively

5.3. Present medical information effectively to the public or media about a medical issue

Collaborator

Definition:

As Collaborators, Orthopedic Surgeons effectively work within a healthcare team to achieve optimal patient care.
Key and Enabling Competencies: Orthopedic Surgeons are able to...

1. Participate effectively and appropriately in an interprofessional healthcare team
   1.1. Describe the specialist’s roles and responsibilities to other professionals
   1.2. Describe the roles and responsibilities of other professionals within the health care team
       1.2.1. Describe community support groups which can assist the orthopedic patient and their families (e.g. orthopedic tumours)
   1.3. Recognize and respect the diversity of roles, responsibilities and competences of other professionals in relation to their own
       1.3.1. Recognize the limitations of their professional competence
   1.4. Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients)
       1.4.1. Work effectively as a team member when not in a team leadership role
   1.5. Work with others to assess, plan, provide and review other tasks, such as research problems, educational work, program review or administrative responsibilities
       1.5.1. Participate in morbidity and mortality reviews
   1.6. Participate effectively in interprofessional team meetings
   1.7. Enter into interdependent relationships with other professions for the provision of quality care
   1.8. Describe the principles of team dynamics
   1.9. Respect team ethics, including confidentiality, resource allocation and professionalism
   1.10. Demonstrate leadership in a healthcare team

2. Work effectively with other health professionals to prevent, negotiate, and resolve interprofessional conflict
   2.1. Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
   2.2. Work with other professionals to prevent conflicts
   2.3. Employ collaborative negotiation to resolve conflicts
   2.4. Respect differences and address misunderstandings and limitations in other professionals
   2.5. Recognize one’s own differences, misunderstanding and limitations that may contribute to interprofessional tension
   2.6. Reflect on interprofessional team function
Manager

Definition:

As Managers, Orthopedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

Key and Enabling Competencies: Orthopedic Surgeons are able to...

1. Participate in activities that contribute to the effectiveness of their healthcare organizations and systems
   1.1. Work collaboratively with others in their organizations
   1.2. Participate in systemic quality process evaluation and improvement, such as patient safety initiatives
   1.3. Describe the structure and function of the healthcare system as it relates to Orthopedic Surgery, including the roles of physicians
       1.3.1. Explain population-based approaches to health care services and their implication for medical practice
       1.3.2. Describe provincial trauma care
   1.4. Describe principles of healthcare financing, including physician remuneration, budgeting and organizational funding

2. Manage their practice and career effectively
   2.1. Set priorities and manage time to balance patient care, practice requirements, outside activities and personal life
       2.1.1. Manage patients’ length of stay efficiently
       2.1.2. Manage surgical waiting lists efficiently
   2.2. Manage a practice including finances and human resources
       2.2.1. Explain the principles of practice management including group practice versus solo practice
       2.2.2. Describe basic negotiation skills
       2.2.3. Describe basic principles of providing / receiving references
   2.3. Implement processes to ensure personal practice improvement
       2.3.1. Demonstrate an ability to access and apply a broad base of information to the care of patients in ambulatory care, hospitals and other health care settings
2.4. Employ information technology appropriately for patient care

3. **Allocate finite healthcare resources appropriately**
   3.1. Recognize the importance of just allocation of healthcare resources, balancing effectiveness, efficiency and access with optimal patient care
   3.2. Apply evidence and management processes for cost-appropriate care

4. **Serve in administration and leadership roles**
   4.1. Chair or participate effectively in committees and meetings
   4.2. Lead or implement change in health care
   4.3. Plan relevant elements of health care delivery (e.g., work schedules)

**Health Advocate**

**Definition:**

As Health Advocates, Orthopedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

**Key and Enabling Competencies: Orthopedic Surgeons are able to...**

1. **Respond to individual patient health needs and issues as part of patient care**
   1.1. Identify the health needs of an individual patient
      1.1.1. Identify determinants of health particular to an individual patient
      1.1.2. Adapt patient assessment and management according to particular determinants of health
      1.1.3. Determine a patient’s ability to access various services in the health and social systems
   1.2. Identify opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care
      1.2.1. Promote injury prevention with respect to recreational activities
      1.2.2. Identify risk factors that can lead to nonunion, ulceration, amputation, Charcot joints, and malignancy, and advise patients on lifestyle modifications to improve outcomes
      1.2.3. Advise athletes on the risks and side effects of performance enhancing drugs and substance abuse
2. **Respond to the health needs of the communities that they serve**
   2.1. Describe the practice communities that they serve
   2.2. Identify opportunities for advocacy, health promotion and disease prevention in the communities that they serve, and respond appropriately
      - 2.2.1. Identify workplace and farming factors that lead to an increased risk of trauma
      - 2.2.2. Identify sport/recreational factors that lead to an increased risk of trauma
   2.3. Appreciate the possibility of competing interests between the communities served and other populations

3. **Identify the determinants of health for the populations that they serve**
   3.1. Identify the psychological, social and physical determinants of health of the populations that they serve, including barriers to access to care and resources
      - 3.1.1. Identify "at risk" populations within a given orthopedic practice in conjunction with Orthopedic Surgery specialty societies and other associations
   3.2. Identify vulnerable or marginalized groups within the population served and respond appropriately
      - 3.2.1. Apply available knowledge regarding prevention to "at risk" groups
      - 3.2.2. Contribute to the generation of population-based data for improved understanding of orthopedic problems within "at risk" populations

4. **Promote the health of individual patients, communities, and populations**
   4.1. Describe an approach to implementing a change in a determinant of health of the populations they serve
      - 4.1.1. Explain the need to advocate to decrease the burden of illness (at a community or societal level) of a condition or problem relevant to orthopedics through a relevant orthopedic society, community-based advocacy group, other public education bodies, or private organizations
   4.2. Describe how public policy impacts on the health of the populations served
   4.3. Identify points of influence in the healthcare system and its structure
      - 4.3.1. Discuss key issues regarding the Canadian health care system, indicating how these changes might affect societal health outcomes
   4.4. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism
   4.5. Appreciate the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper
4.6. Describe the role of the medical profession in advocating collectively for health and patient safety

Scholar

Definition:

As Scholars, Orthopedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

Key and Enabling Competencies: Orthopedic Surgeons are able to...

1. Maintain and enhance professional activities through ongoing learning
   1.1. Describe the principles of maintenance of competence
       1.1.1. Explain the Maintenance of Competence requirements of the Royal College of Physicians and Surgeons
       1.1.2. Explain the principles of Continuing Professional Development
       1.1.3. Formulate relevant personal learning projects
   1.2. Describe the principles and strategies for implementing a personal knowledge management system
   1.3. Recognize and reflect learning issues in practice
   1.4. Conduct a personal practice audit
   1.5. Pose an appropriate learning question
   1.6. Access and interpret the relevant evidence
   1.7. Integrate new learning into practice
       1.7.1. Recognize and correct deficits in knowledge and technical skills through targeted learning
   1.8. Evaluate the impact of any change in practice
   1.9. Document the learning process

2. Evaluate medical information and its sources critically, and apply this appropriately to practice decisions
   2.1. Describe the principles of critical appraisal
   2.2. Critically appraise retrieved evidence in order to address a clinical question
   2.3. Integrate critical appraisal conclusions into clinical care
3. **Facilitate the learning of patients, families, students, residents, other health professionals, the public and others**
   
   3.1. Describe principles of learning relevant to medical education
       
       3.1.1. Describe the principles of adult learning
       
       3.1.2. Discuss teaching models for patient and colleague education
       
   3.2. Identify collaboratively the learning needs and desired learning outcomes of others
   
   3.3. Select effective teaching strategies and content to facilitate others’ learning
   
   3.4. Contribute to the creation, dissemination, application, and translation of new medical knowledge and practices
   
   3.5. Demonstrate an effective lecture or presentation
   
   3.6. Assess and reflect on a teaching encounter
   
   3.7. Provide effective feedback
       
       3.7.1. Assess the competence of junior learners working on the orthopedic team
   
   3.8. Describe the principles of ethics with respect to teaching

4. **Contribute to the development, dissemination, and translation of new knowledge and practices**
   
   4.1. Describe the principles of research and scholarly inquiry
   
   4.2. Describe the principles of research ethics
   
   4.3. Pose a scholarly question
   
   4.4. Conduct a systematic search for evidence
   
   4.5. Select and apply appropriate methods to address the question
   
   4.6. Disseminate the findings of a study

**Professional**

**Definition:**

As *Professionals*, Orthopedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.
Key and Enabling Competencies: Orthopedic Surgeons are able to...

1. Demonstrate a commitment to their patients, profession, and society through ethical practice
   1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism
   1.2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence
   1.3. Recognize and appropriately respond to ethical issues encountered in practice
       1.3.1. Pose an ethical question related to research and discuss the resolution of that question
       1.3.2. Describe the principles of ethics in sports, including substance abuse and performance enhancing drugs
       1.3.3. Explain the legal, ethical and professional codes governing a physician’s relationship with industry
   1.4. Manage conflicts of interest appropriately
   1.5. Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law
   1.6. Maintain appropriate relations with patients

2. Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation
   2.1. Appreciate the professional, legal and ethical codes of practice
   2.2. Fulfill the regulatory and legal obligations required of current practice
       2.2.1. Describe the medicolegal obligations associated with non-accidental trauma in children
   2.3. Demonstrate accountability to professional regulatory bodies
   2.4. Recognize and respond to others’ unprofessional behaviours in practice
   2.5. Participate in peer review

3. Demonstrate a commitment to physician health and sustainable practice
   3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice
   3.2. Strive to heighten personal and professional awareness and insight
   3.3. Recognize other professionals in need and respond appropriately
These training requirements apply to those who begin training on or after July 1st, 2010.

As the Objectives of Training in Surgical Foundations are felt to be basic to all surgical specialties, it is felt that most if not all of the knowledge and skills can be achieved on many different rotations. It is expected that the resident experience a diversity of rotations.

MINIMUM TRAINING REQUIREMENTS

1. Twenty-six (26) blocks of approved residency in foundational training, a maximum of one (1) year of which may be undertaken in their parent specialty. This period must include the following training that will be counted as part of the parent specialty training if provided by that specialty:
   1.1. A minimum of one (1) block of critical care
   1.2. A minimum of one (1) block on a service that provides initial trauma management (such as Emergency Medicine, General Surgery, trauma team, Orthopedic Surgery, or Plastic Surgery)

NOTES:

It is expected that the Surgical Foundations program director and the parent program director will collaboratively develop the series of rotations that will allow the trainee to meet the Objectives of Training in Surgical Foundations.
Objectives of Surgical Foundations Training

2010
EDITORIAL REVISION - 2011
VERSION 1.1

This document applies to those who begin training on or after July 1st, 2010.

(Please see also the “Policies and Procedures.”)

DEFINITION

Surgical Foundations encompasses the core foundational surgical competencies that are required for the following surgical specialties:

- Cardiac Surgery
- General Surgery
- Neurosurgery
- Orthopedic Surgery
- Otolaryngology – Head and Neck Surgery
- Plastic Surgery
- Urology
- Vascular Surgery

Surgical Foundations is that initial period of postgraduate training required to acquire the knowledge, skills and attitudes underlying the basics to the practice of surgery in general and preparatory to further training in a surgical specialty or subspecialty. For the purpose of clarity, the Surgical Foundations resident refers to any surgical resident in PGY1 and PGY2 or that resident on remediation, who has not fulfilled the objectives of training. These objectives refer to exit competencies for which a Surgical Foundations resident must be evaluated by the end of PGY2.

NOTE:

At the discretion of the Surgical Foundations and home program director, residents who fail to meet these objectives at the end of PGY2 may continue training, however, a remediation plan must be put in place. These objectives of training must be achieved by the end of the third year of training. Successful completion of the Principles of Surgery examination has been designated as one of the means to evaluate the attainment of the objectives of Surgical Foundations, however, if all other objectives are met, but if a candidate fails the POS exam, he/she may be allowed to continue in their home specialty.

GOALS
Upon completion of the Surgical Foundations training period, a Surgical Foundations resident is expected to demonstrate competence in the management of the surgical patient as outlined in this document.

Residents must demonstrate the requisite knowledge, skills, and attitudes for effective patient-centered care and service to a diverse population. In all aspects of specialist practice, the resident must be able to address issues of gender, sexual orientation, age, culture, ethnicity and ethics in a professional manner.

Surgical Foundations must provide opportunities for residents to achieve the competencies outlined in these objectives. Training must provide the resident with graduated responsibility for the management of surgical patients under appropriate supervision.

**SURGICAL FOUNDATIONS COMPETENCIES**

At the completion of Surgical Foundations training, the resident will have acquired the following competencies and will function effectively as a:

**Medical Expert**

*Definition:*

As *Medical Experts*, the Surgical Foundations resident will integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. *Medical Expert* is the central physician Role in the CanMEDS framework.

*Key and Enabling Competencies: by the end of Surgical Foundations training, the Surgical Foundations resident is able to...*

1. **Demonstrate the ability to perform a consultation, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care**
   
   1.1. Perform a consultation, including:
      
      1.1.1. Conduct and present well-documented assessments
      
      1.1.2. Prepare recommendations in written and/or verbal form in response to a request from another health care professional
      
      1.2. Demonstrate compassionate and patient-centered care

2. **Establish and maintain clinical knowledge, skills and attitudes appropriate to surgical practice**
   
   2.1. Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to surgical practice during assessment of a patient including:
      
      2.1.1. Anatomy
      
      2.1.1.1. Relevant anatomy to all basic surgical approaches
2.1.2. Physiology
   2.1.2.1. Impact of age on specific organ systems as it relates to surgical management
   2.1.2.2. Impact of pregnancy on specific organ systems as it relates to surgical management
   2.1.2.3. Obesity and the impact of obesity on organ systems
   2.1.2.4. Respiratory system
      2.1.2.4.1. Lung volumes - flow rates - pressures
      2.1.2.4.2. Oxygen transport
   2.1.2.5. Hemostasis
      2.1.2.5.1. Physiology of coagulation
   2.1.2.6. Fluid and electrolyte physiology
      2.1.2.6.1. Fluid compartments and body water component
      2.1.2.6.2. Osmotic and volume regulation
      2.1.2.6.3. Sodium (Na), Potassium (K), Calcium (Ca), Phosphorus (P) and Magnesium (Mg) metabolism
      2.1.2.6.4. Regulation of acid-base
   2.1.2.7. Circulatory system
      2.1.2.7.1. Hemodynamics of cardiovascular system
   2.1.2.8. Immunology of sepsis and transplantation
   2.1.2.9. Nutrition
      2.1.2.9.1. Metabolic needs
      2.1.2.9.2. Caloric-protein-lipid requirements, fluids and micronutrients
      2.1.2.9.3. Adaptation to starvation as compared to response to surgical stress

2.1.3. Body response to surgical stress
   2.1.3.1. Metabolic responses including catabolic response, the need for metabolic support and endocrine changes not mediated by the neuroendocrine axis
   2.1.3.2. Mediators, cells
   2.1.3.3. Neuroendocrine axis

2.1.4. Sepsis and the inflammatory response
2.1.4.1. Metabolic and hemodynamic patterns
2.1.4.2. Mediators, cells
2.1.4.3. Impact on organ systems

2.1.5. Disease states in organ systems and their impact on the surgical patient:

2.1.5.1. Cardiac
   2.1.5.1.1. Coronary Artery Disease (CAD)
   2.1.5.1.2. Valvular disease
   2.1.5.1.3. Cardiomyopathy
   2.1.5.1.4. Cardiac arrest, arrhythmias as per ACLS protocols

2.1.5.2. Pulmonary
   2.1.5.2.1. Chronic Obstructive Lung Disease (COLD)

2.1.5.3. Renal
   2.1.5.3.1. Renal failure

2.1.5.4. Endocrine
   2.1.5.4.1. Diabetes
      2.1.5.4.1.1. Physiological complications
      2.1.5.4.1.2. Management of glycemia
   2.1.5.4.2. Thyroid pathophysiology
   2.1.5.4.3. Parathyroid pathophysiology
   2.1.5.4.4. Adrenal pathophysiology

2.1.5.5. Hepatic
   2.1.5.5.1. Cirrhosis
   2.1.5.5.2. Liver failure

2.1.5.6. Hematologic:
   2.1.5.6.1. Screening for diatheses
   2.1.5.6.2. Hypocoagulable states
   2.1.5.6.3. Hypercoagulable states

2.1.6. Indications, complications and benefits for nutritional support, including enteral and parenteral feeding

2.1.7. Risk assessment strategies and scores
2.1.7.1. Anesthetic risks
2.1.7.2. Cardiac risk assessment
2.1.7.3. ICU risk assessment
2.1.7.4. Trauma assessment including Glasgow Coma scale
2.1.7.5. Nutritional assessment
2.1.7.6. Preoperative screening tests and their limitations

2.1.8. Diagnostic modalities including their technology and limitations
   2.1.8.1. Plain radiography
   2.1.8.2. Ultrasound
   2.1.8.3. CT scan
   2.1.8.4. MRI technology
   2.1.8.5. Fluoroscopy
   2.1.8.6. Nuclear Medicine
      2.1.8.6.1. PET scan

2.1.8.7. Emerging technologies

2.1.9. Radiation safety principles as they apply to patient and practitioners

2.1.10. Medical treatments and their impact on the surgical management of a patient
   2.1.10.1. Immunosuppression
   2.1.10.2. Chemotherapy
   2.1.10.3. Radiotherapy
   2.1.10.4. Common drugs with impact on hemostatic function and how to correct their impact
   2.1.10.5. Alternative medicine

2.1.11. Blood products and derivatives, including types, indications and adverse reactions

2.1.12. Oncology
   2.1.12.1. Purpose and basis of staging
   2.1.12.2. Basic principles of neoplastic transformation including tumor growth and spread
      2.1.12.2.1. Pathology requirements for appropriate assessments
   2.1.12.2. Definition of common pathological terms such as but not limited to neoplasia, malignancy, dysplasia, metaplasia and atypia
2.1.12.3. Genetics of neoplasia
2.1.12.4. Genetics of families at risk
2.1.12.5. Role of environmental carcinogens
2.1.12.6. Paraneoplastic syndromes
2.1.12.7. Principles of multi-modality therapy

2.1.13. Trauma:
   2.1.13.1. Principles of advanced trauma life support (ATLS) or principles of trauma care including initial management

2.1.14. Common infection
   2.1.14.1. Community and hospital acquired bacteria, fungi and viruses
   2.1.14.2. Impact of blood borne pathogens, including HIV, Hepatitis B and Hepatitis C

2.1.15. Transplantation/implantation
   2.1.15.1. Description of autograft, xenograft, and allograft
   2.1.15.2. Graft rejection - mechanisms and types
   2.1.15.3. Implants
      2.1.15.3.1. Principles of compatibility
      2.1.15.3.2. Biological reaction/rejection

2.2. Demonstrate an understanding of the conduct of a surgical procedure
   2.2.1. Principles of patient safety
   2.2.2. Principles of management of patient and surgical team with respect to blood borne pathogens
      2.2.2.1. Needle stick injury
      2.2.2.2. Mucosal exposure
      2.2.2.3. Smoke plume inhalation

   2.2.3. Wound healing
      2.2.3.1. Classification of wounds
      2.2.3.2. Normal wound healing
      2.2.3.3. Abnormal wound healing
      2.2.3.4. Factors that alter wound healing

   2.2.4. Principles of energy sources
2.2.4.1. Electro-cautery
2.2.4.2. Laser
2.2.4.3. Emerging energy source modalities

2.2.5. Principles of prophylaxis
2.2.5.1. Wound and systemic infection
2.2.5.2. Thromboembolism
2.2.5.3. Tetanus

2.2.6. Principles of anesthesia, analgesia and sedation
2.2.6.1. Local anesthetic agents, indications, contra-indications and administration
2.2.6.2. Regional anesthetics
2.2.6.3. General anesthetics
2.2.6.4. Procedural sedation, indications, contra-indications and administration
2.2.6.5. Complications arising from the administration of anesthesia

2.3. Demonstrate an understanding of routine post-operative patient care
2.3.1. Fluid management
2.3.2. Wound care
2.3.3. Pain management
   2.3.3.1. Pathophysiology and types of pain
   2.3.3.2. Common analgesic medications
   2.3.3.3. Patient controlled analgesia
   2.3.3.4. Regional analgesia, including epidural

2.4. Demonstrate an understanding of the pathophysiology and complications in the surgical patient
2.4.1. Cardiac
   2.4.1.1. Principles of advanced cardiac life support
   2.4.1.2. Failure
   2.4.1.3. Ischemia
   2.4.1.4. Arrhythmia

2.4.2. Circulatory shock
   2.4.2.1. Distributive
   2.4.2.2. Cardiogenic
2.4.2.3. Hypovolemic
2.4.2.4. Obstructive

2.4.3. Multiple organ dysfunction syndrome

2.4.4. Pulmonary
2.4.4.1. Respiratory failure
  2.4.4.1.1. Indications, contra-indications and complications of mechanical ventilation

2.4.4.2. Pulmonary embolism
2.4.4.3. Fat embolism

2.4.5. Genito-urinary

2.4.6. Hemostasis

2.4.7. Vascular
2.4.7.1. Deep Venous Thrombosis (DVT)
2.4.7.2. Arterial ischemia

2.4.8. Endocrine
2.4.8.1. Glycemic control
2.4.8.2. Thyroid storm
2.4.8.3. Adrenal insufficiency
2.4.8.4. Syndrome of Inappropriate ADH

2.4.9. Skin
2.4.9.1. Pressure sores

2.4.10. Neurologic
2.4.10.1. Delirium and altered mental status
2.4.10.2. Transient Ischemic Attack (TIA) and stroke
2.4.10.3. Principles of brain death assessment

2.4.11. Psychiatric

2.4.12. Gastrointestinal
2.4.12.1. Stress gastritis
2.4.12.2. Post-operative Ileus

2.4.13. Common postsurgical infections
2.4.13.1. Pulmonary
2.4.13.2. Vascular catheter
2.4.13.3. Urinary
2.4.13.4. Parotitis
2.4.13.5. Surgical site infection, including incisional and organ/space
2.4.13.6. Spreading and necrotizing infections
2.4.13.7. Hematogenous infections
2.4.13.8. Types of bacteria:
   2.4.13.8.1. Clostridium difficile
   2.4.13.8.2. Multi antibiotic-resistant pathogens
      2.4.13.8.2.1. Methicillin-resistant *Staphylococcus aureus*
      2.4.13.8.2.2. Multi-resistant gram negative bacilli
      2.4.13.8.2.3. Vancomycin Resistant Enterococci
2.4.13.8.3. Common pathogens in the specific surgical site

2.4.14. Compartment syndromes
   2.4.14.1. Abdominal
   2.4.14.2. Limb

2.4.15. Delayed wound healing

3. **Perform a complete and appropriate assessment of a surgical patient**

3.1. Elicit a history and perform a physical examination that is relevant, concise and accurate to context and preferences for the purposes of prevention and health promotion, diagnosis and/or management

3.1.1. Identify risk factors for disease or diagnoses
3.1.2. Identify aspects that may affect surgical management of the patient
3.1.3. Identify issues that may impact post-operative care
3.1.4. Identify opportunities for risk management and prevention

3.2. Select medically appropriate investigative methods in a resource-effective and ethical manner including but not limited to the:

3.2.1. Preoperative screening tests
3.2.2. Laboratory tests and imaging
3.3. Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating the information to generate differential diagnoses and management plans.

4. Use preventive and therapeutic interventions effectively

4.1. Formulate and implement a comprehensive management plan in collaboration with patients and their families for the following clinical situations

4.1.1. Preoperative evaluation and optimization of the patient with the following conditions:

4.1.1.1. Cardiac disease
   4.1.1.1.1. Arrhythmias
   4.1.1.1.2. Ischemic heart disease
   4.1.1.1.3. Valvular heart disease
   4.1.1.1.4. Heart failure
      4.1.1.1.4.1. Myopathy

4.1.1.2. Pulmonary disease
   4.1.1.2.1. Respiratory failure
   4.1.1.2.2. Chronic lung disease (CLD)

4.1.1.3. Kidney disease
   4.1.1.3.1. Acid base disorders
   4.1.1.3.2. Electrolytes disorders (sodium, potassium, calcium, phosphorus, magnesium)
   4.1.1.3.3. Renal insufficiency

4.1.1.4. Liver disease:
   4.1.1.4.1. Cirrhosis and its complications
   4.1.1.4.2. Liver failure

4.1.1.5. Endocrine disease:
   4.1.1.5.1. Diabetes
   4.1.1.5.2. Thyroid disease
   4.1.1.5.3. Adrenal disorders

4.1.1.6. Disorders of hemostasis
4.1.1.7. Pregnancy
4.1.1.8. Morbid obesity
4.1.1.9. Malnutrition

4.1.1.10. Patient with immunosuppression:
  4.1.1.10.1. HIV
  4.1.1.10.2. Secondary to drugs
  4.1.1.10.3. Chronic disease states
  4.1.1.10.4. Post transplant

4.1.1.11. Trauma

4.1.1.12. Thermal injury

4.1.1.13. Shock of all types


4.1.2. Unexpected perioperative bleeding both surgical and nonsurgical

4.1.3. Prophylaxis:
  4.1.3.1. Antibiotic
  4.1.3.2. Thromboembolic
  4.1.3.3. Immunization, including tetanus

4.2. Demonstrate effective, appropriate and timely application of preventive and therapeutic interventions for post-operative management of patients with:

4.2.1. Uneventful postoperative course

4.2.2. Complicated post-operative course:
  4.2.2.1. Approach to a patient with fever

4.2.2.2. Cardiac disorders:
  4.2.2.2.1. Ischemia
  4.2.2.2.2. Arrhythmias
  4.2.2.2.3. Heart failure

4.2.2.3. Pulmonary disease
  4.2.2.3.1. Aspiration pneumonia
  4.2.2.3.2. Hospital-acquired pneumonia
  4.2.2.3.3. Pulmonary embolus
  4.2.2.3.4. Respiratory insufficiencies
  4.2.2.3.5. Pneumothorax

4.2.2.4. Kidney disease:
  4.2.2.4.1. Oliguria – anuria
4.2.2.4.2. Renal failure
4.2.2.4.3. Electrolyte and acid-base disorders

4.2.2.5. Vascular disease:
   4.2.2.5.1. Deep venous thrombosis

4.2.2.6. Gastro-intestinal disease:
   4.2.2.6.1. GI bleeding
   4.2.2.6.2. Ileus

4.2.2.7. Sepsis
   4.2.2.7.1. Catheter sepsis
   4.2.2.7.2. Superficial surgical site infection
   4.2.2.7.3. Deep surgical site infection

4.2.2.8. Compartment syndromes:
   4.2.2.8.1. Abdominal
   4.2.2.8.2. Limb

4.2.2.9. Fat embolism
4.2.2.10. Pressure sores
4.2.2.11. Recognition of complications from operative positioning

4.3. Ensure appropriate informed consent is obtained for therapies
4.4. Ensure patients receive appropriate end-of-life care

5. Demonstrate proficient and appropriate use of procedural skills

5.1. Ensure appropriate informed consent is obtained for procedures including the discussion of appropriate postoperative care and issues with patients and families

5.2. Pre-procedural skills
   5.2.1. Appropriate usage of imaging
      5.2.1.1. Demonstrate proficiency in ordering appropriate imaging with sufficient attention to clinical details.
      5.2.1.2. Demonstrate an approach to the interpretation of common and simple imaging modalities including:
         5.2.1.2.1. Plain chest X-ray
         5.2.1.2.2. Plain views of the abdomen
         5.2.1.2.3. Common cross-sectional imaging
5.2.1.2.4. Routine trauma imaging
5.2.1.2.5. Ultrasound

5.2.2. Demonstrate effective, appropriate and timely performance of a surgical procedure while maintaining patient and team safety
5.2.2.1. Apply the concept of aseptic technique as it is used for all procedures
5.2.2.2. Gather and manage the availability of appropriate instruments and materials for minor procedures
5.2.2.3. Obtain appropriate assistance
5.2.2.4. Maintain universal precautions
5.2.2.4.1. Demonstrate understanding of the steps to take when there has been a break in universal precautions or a potential contamination
5.2.2.5. Demonstrate appropriate patient positioning
5.2.2.6. Prepare the operative site
5.2.2.7. Cleanse the operative site
5.2.2.8. Appropriately hand-cleanse, gown and glove
5.2.2.9. Demonstrate appropriate draping
5.2.2.10. Deliver pre-procedural anesthesia if appropriate

5.3. Procedural skills
5.3.1. Demonstrate the application of anatomic knowledge as it relates to the surgical procedure in which they are participating.
5.3.2. Demonstrate appropriate use of operative assistance
5.3.2.1. Recognize when to use operative assistance as necessary for the safe and effective performance of operative procedures
5.3.2.2. Demonstrate understanding of personal technical limitations
5.3.2.3. Direct assistants

5.3.3. Demonstrate effective operative assistance
5.3.3.1. Demonstrate how to provide operative assistance as necessary for the safe and effective performance of operative procedures
5.3.3.2. Take direction from a lead surgeon

5.3.4. Demonstrate the appropriate use of common surgical instruments such as but not limited to needle drivers, retractors, forceps, clamps, electrocautery, scalpel and scissors.
5.3.5. Demonstrate the appropriate choice and use of suture materials
5.3.6. Perform the following surgical skills

5.3.6.1. Incision using sharp and energy-based instruments
5.3.6.2. Knot tying
5.3.6.3. Suturing
5.3.6.4. Appropriate tissue handling during surgical procedures paying attention to the preservation of tissue vitality
5.3.6.5. Blunt and sharp dissection without injury to adjacent structures
5.3.6.6. Vascular control in elective and critical situations
5.3.6.7. Closure of simple wounds
5.3.6.8. Appropriate use of drains
5.3.6.9. Application of appropriate wound dressing
5.3.6.10. Urethral catheter insertion
5.3.6.11. Insertion of a nasogastric tube
5.3.6.12. Tourniquet application
5.3.6.13. Splint for bony injury or soft tissue injury
5.3.6.14. Remove a superficial skin lesion
5.3.6.15. Drain a superficial abscess
5.3.6.16. Biopsy (the specifics of tissue type and anatomic locations can be designated as appropriate to the surgical specialty and will be outlined in that OTR)
5.3.6.17. Secure arterial and venous vascular access in critical and non-critical situations

5.3.7. Demonstrate the ability to perform the following procedures in critical situations:

5.3.7.1. Needle thoracostomy
5.3.7.2. Tube thoracostomy
5.3.7.3. Needle Cricothyroidotomy
5.3.7.4. Cricothyroidotomy or tracheostomy

5.4. Post-procedural skills

5.4.1. Preparation and handling of specimen for presentation to a pathologist
5.4.2. Perform appropriate wound surveillance and dressing care

5.5. Document and disseminate information related to procedures performed and their outcomes including operative reports and other records
5.6. Ensure adequate follow-up is arranged for procedures performed

5.6.1. Plan and discuss appropriate postoperative care and issues with patients and families

5.6.2. Discuss immediate and long-term follow-up issues with family members or medical power-of-attorney as appropriate

5.6.3. Arrange for appropriate postoperative resources

Communicator

Definition:

As Communicators, the Surgical Foundations resident will effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

Key and Enabling Competencies: by the end of Surgical Foundations training, the Surgical Foundations resident is able to...

1. Develop rapport, trust, and ethical therapeutic relationships with patients and families

   1.1. Identify and explore issues to be addressed in a surgical patient encounter effectively, including but not limited to the patient’s context and preferences which include items to be addressed such as age, ethnicity, gender, family, and religious beliefs.

   1.2. Recognize that being a good communicator is a core clinical skill for surgeons, and that effective physician-patient communication can foster patient adherence to treatment regimens, improved clinical outcomes, patient satisfaction and physician satisfaction.

   1.3. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy

      1.3.1. Encourage discussion, questions, and interaction in the encounter

      1.3.2. Engage patients, families, and relevant health care professionals to develop a plan of care using shared decision-making

   1.4. Respect patient confidentiality, privacy and autonomy

      1.4.1. Demonstrate an understanding of the risk of breaching patient confidentiality as a result of new technologies such as telehealth, internet or digital storage and transmission devices

   1.5. Listen effectively

   1.6. Be aware of and responsive to nonverbal cues

   1.7. Facilitate a structured clinical encounter effectively
2. **Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals**
   2.1. Gather information about a disease and about a patient’s beliefs, concerns, expectations and illness experience
   2.2. Seek out and synthesize relevant information from other sources, such as a patient’s family, caregivers and other professionals

3. **Convey relevant information and explanations accurately to patients and families, colleagues and other professionals**
   3.1. Deliver information to a patient and family, colleagues and other professionals in a humane manner and in such a way that it is understandable, encourages discussion and participation in decision-making
   3.2. Plan and discuss appropriate perioperative care and issues with patients and families preoperatively
   3.3. Perform informed discharge as it relates to the procedures being done
   3.4. Discuss follow-up issues with family members or medical power-of-attorney as appropriate
   3.5. Educate the patient and family concerning alternatives for surgical and non-surgical care
   3.6. Demonstrate an awareness of effective communication using newer technologies

4. **Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care**
   4.1. Respect diversity and difference on decision-making, including but not limited to the impact of:
      4.1.1. Gender
      4.1.2. Religion
      4.1.3. Cultural beliefs
      4.1.4. Age
      4.1.5. Sexual orientation
      4.1.6. Socioeconomic status
   4.2. Address challenging communication issues effectively, including:
      4.2.1. Obtaining informed consent
      4.2.2. Delivering bad news
      4.2.3. Disclosing adverse events
      4.2.4. Discussing end-of-life care
      4.2.5. Discussing organ donation
      4.2.6. Addressing anger, confusion and misunderstanding
4.2.7. Language barriers
4.2.8. Cultural differences

5. Convey effective oral and written information about a medical encounter

5.1. Maintain clear, concise, accurate and appropriate records (e.g., written or electronic) of clinical encounters and plans
5.2. Present verbal reports of clinical encounters and plans

Collaborator

Definition:

As Collaborators, the Surgical Foundations resident will effectively work within a health care team to achieve optimal patient care.

Key and Enabling Competencies: by the end of Surgical Foundations training, the Surgical Foundations resident is able to...

1. Participate effectively and appropriately in an interprofessional and interdisciplinary health care team

1.1. Describe the surgeon’s roles and responsibilities to other professionals
   1.1.1. Describe the elements of a good consultation
   1.1.2. Recognize one’s own limitations and when help is needed from others

1.2. Describe the roles and responsibilities of other professionals within the health care team

1.3. Recognize and respect the diversity of roles, responsibilities and competencies of other professionals in relation to their own

1.4. Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients)
   1.4.1. Arrange for the appropriate postoperative resources to be available
   1.4.2. Arrange for appropriate postoperative allied health care assistance as necessary

1.5. Work with others to assess, plan, provide and review other tasks, such as research problems, educational work, educational program review or administrative responsibilities

1.6. Participate effectively in interprofessional team meetings

1.7. Enter into interdependent relationships with other professions for the provision of quality care
1.8. Describe the principles of team dynamics in the operative and non-operative environments

1.9. Respect team ethics, including confidentiality, resource allocation and professionalism

1.10. Demonstrate leadership in a health care team, as appropriate

1.11. Describe the use of a pre-operative team checklist and how it improves patient safety

2. Work with other health professionals effectively to prevent, negotiate, and resolve conflict

2.1. Demonstrate a respectful attitude towards other colleagues and members of a team

2.2. Work with other professionals to prevent conflicts

2.3. Employ collaborative negotiation to resolve conflicts

2.4. Respect differences and address misunderstandings and limitations in other professionals

2.5. Recognize one’s own differences, misunderstandings and limitations that may contribute to interprofessional tension

Manager

Definition:

As Managers, Surgical Foundations residents will take part in health care organizations, making decisions about allocating resources, and contributing to the effectiveness of the health care system.

Key and Enabling Competencies: by the end of Surgical Foundations training, the Surgical Foundations resident is able to...

1. Demonstrate an understanding of the influences that affect the workings of the health care system at various levels, including an understanding of:

   1.1. The Canada Health Act
   1.2. Pertinent provincial and federal health legislation
   1.3. Provincial regulatory bodies
   1.4. Hospital governance
   1.5. Operating room governance
   1.6. Worker’s Compensation organizations
   1.7. The role of the Coroner’s Office/Medical Examiners
   1.8. Public Health as it relates to mandatory reporting of disease
2. **Participate in activities that contribute to the effectiveness of their health care organizations and systems**
   
   2.1. Participate in systemic quality process evaluation and improvement, such as patient safety initiatives
   
   2.2. Describe the structure and function of the health care system as it relates to their surgical practice, including the roles of physicians
   
   2.3. Describe principles of health care financing

3. **Manage their practice and career effectively**
   
   3.1. Set priorities and manage time to balance patient care, practice requirements, outside activities and personal life
   
   3.2. Employ information technology appropriately for patient care
   
   3.3. Demonstrate an understanding of the introduction of new technologies and the need for:
      
      3.3.1. Health technology assessment
      
      3.3.2. Education
      
      3.3.3. Credentialing

4. **Allocate finite health care resources appropriately**
   
   4.1. Recognize the importance of just allocation of health care resources, balancing effectiveness, efficiency and access with optimal patient care

---

**Health Advocate**

**Definition:**

As *Health Advocates*, the Surgical Foundations resident will responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

**Key and Enabling Competencies: by the end of Surgical Foundations training, the Surgical Foundations resident is able to...**

1. **Respond to individual patient health needs and issues as part of patient care**
   
   1.1. Identify the health needs of an individual patient
   
   1.2. Recognize opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care, such as identifying:
      
      1.2.1. Child abuse
1.2.2. Elder abuse
1.2.3. Domestic violence
1.2.4. Smoking cessation
1.2.5. Substance abuse
1.2.6. Patient behaviours that place them at risk for injury or disease
1.2.7. Disadvantaged populations

1.3. Recognize the importance of organ transplantation
   1.3.1. Identification of potential donors

1.4. Identify opportunities to advocate for appropriate screening

2. Describe and respond to the health needs of the communities that they serve
   2.1. Demonstrate an understanding of how they may affect surgical disease prevalence

3. Promote the health of individual patients, communities, and populations
   3.1. Describe an approach to implementing a change in a determinant of health of the populations they serve
   3.2. Describe how public policy impacts on the health of the populations served
   3.3. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism
   3.4. Appreciate the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper
   3.5. Describe the role of the medical profession in advocating collectively for health and patient safety

4. Promote and participate in patient safety
   4.1. Describe ways to prevent injury
      4.1.1. Appropriate safety equipment for work and leisure pursuits
      4.1.2. Error prevention system in operating room
Scholar

Definition:

As Scholars, the Surgical Foundations resident will demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

Key and Enabling Competencies: by the end of Surgical Foundations training, the Surgical Foundations resident is able to...

1. Maintain and enhance professional activities through ongoing learning
   1.1. Describe the principles of lifelong learning
   1.2. Describe the principles and strategies for implementing a personal knowledge management system
   1.3. Pose an appropriate learning question
   1.4. Access and interpret the relevant evidence including appropriate literature search
   1.5. Integrate new learning into practice
   1.6. Evaluate the impact of any change in practice
   1.7. Document the learning process using methods such as:
       1.7.1. Surgical logs
       1.7.2. Learning portfolios

2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions
   2.1. Describe the principles of critical appraisal including statistics and epidemiology
   2.2. Critically appraise retrieved evidence in order to address a clinical question
   2.3. Discuss ways to integrate critical appraisal conclusions into clinical care

3. Facilitate the learning of patients, families, students, residents, other health professionals, the public and others
   3.1. Describe principles of learning relevant to medical education
       3.1.1. Develop the skills to educate medical students
   3.2. Identify collaboratively the learning needs and desired learning outcomes of others
   3.3. Select effective teaching strategies and content to facilitate others’ learning
   3.4. Demonstrate an effective lecture or presentation
   3.5. Assess and reflect on a teaching encounter

© 2010 The Royal College of Physicians and Surgeons of Canada. All rights reserved.
3.6. Provide effective feedback

3.7. Describe the principles of ethics with respect to teaching

4. **Demonstrate an understanding of the principles of dissemination of new knowledge**
   4.1. Demonstrate appropriate presentation skills including formal, informal and written presentations

5. **Demonstrate an understanding of the use of information technology to enhance surgical practice, including:**
   5.1. Computers
   5.2. Presentation software
   5.3. Personal digital assistant (PDAs)
   5.4. Simulation and other technologies

**Professional**

*Definition:*

As **Professionals**, the Surgical Foundations residents are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

*Key and Enabling Competencies: by the end of Surgical Foundations training, the Surgical Foundations resident is able to...*

1. **Demonstrate a commitment to their patients, profession, and society through ethical practice**
   1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism
   1.1.1. Demonstrate the ability to be objective in treating patients regardless of their socioeconomic status or other factors

   1.2. Demonstrate and maintain a commitment to delivering the highest quality care
   1.3. Recognize and appropriately respond to ethical issues encountered in practice
   1.4. Manage conflicts of interest
   1.4.1. Demonstrate an awareness of the influence of industry on practice and training

   1.5. Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law
1.6. Maintain appropriate relations with patients

1.7. Recognize the duality of being a learner as well as a practitioner

   1.7.1. Demonstrate an understanding of the role of appropriate supervision

2. **Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation**

   2.1. Demonstrate knowledge and an understanding of the professional, legal and ethical codes of practice

   2.2. Fulfill the regulatory and legal obligations required of current practice

   2.3. Demonstrate accountability to professional regulatory bodies

   2.4. Recognize and respond to others’ unprofessional behaviours in practice

   2.5. Participate in peer review

3. **Demonstrate a commitment to physician health and sustainable practice**

   3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice

   3.2. Strive to heighten personal and professional awareness and insight

   3.3. Recognize other professionals in need and respond appropriately

   3.4. Demonstrate an awareness of the risks associated with the high stress environments in which surgeons work

   3.5. Demonstrate an understanding of occupational risks and their management

   3.6. Promote a healthy lifestyle and demonstrate awareness of personal at risk behaviours

       3.6.1. Substance abuse

       3.6.2. Exposure to infection

       3.6.3. Sleep deprivation

   3.7. Demonstrate an understanding of techniques for stress reduction
Residency Advisory Committee

The Residency Advisory Committee (RAC) is a body of resident representatives that works in tandem with the Residency Program Committee (RPC). The function of the RAC is to ensure resident input in the planning, organization and execution of the program.

Composition of Committee

1. A representative from each residency year PGY 1 - 5
2. Representatives will be elected to coincide with the selection of the RPC resident members
3. The fourth year representative assumes the position of the RAC chairman

The RAC must meet regularly, at least quarterly, and keep minutes. The RAC will meet prior to the RPC. The RPC will receive a copy of the minutes.

Responsibility of the RAC

The RAC is responsible for:

1. Individual members are responsible for collecting feedback from their academic year and presenting it to the RAC in a timely fashion
2. The RAC will represent and advocate for the resident body on the RPC
   a. The RAC chairman may be accompanied by one junior and one senior RAC representative to RPC meetings
3. The RAC provides feedback to the RPC with emphasis on:
   a. Performance of teaching sites and staff
   b. Resident morale
   c. The influence of nursing, paramedical and administrative hospital staff on resident education and service
   d. Any discord between CanMeds program objectives and program reality
4. The RAC will conduct an annual review of the program to assess the quality of the educational experience in order to ensure maximal benefit
Rotation Specific Objectives

Arthroplasty

The following document is intended to guide you in some of the specific knowledge and skills you should develop on this rotation. This document is intended to augment but not replace the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery”. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website.

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT
   • Cognitive & Diagnostic
     o Junior Resident
       ▪ Be able to advise patients regarding the non-operative management of hip and knee arthritis; including indications, complications and effectiveness of such treatment
       ▪ Understand the indications, results and complications of surgery for hip and knee arthritis with respect to age, gender and activity level.
       ▪ Understand the principles of hip and knee reconstructive surgery for arthritis including osteotomy, arthrodesis and joint replacement
       ▪ Understand the recovery and rehabilitation following hip and knee replacement
       ▪ Understand the unique medical problems of the geriatric population

     o Senior Resident
       ▪ Be competent in recognizing and assessing painful or failed hip and knee replacements, particularly with respect to infection
       ▪ Understand the details of hip and knee reconstructive surgery for arthritis including osteotomy, arthrodesis and joint replacement
       ▪ Understand the assessment, treatment and sequelae of complications associated with hip and knee reconstructive surgery
       ▪ Demonstrate detailed knowledge of the following areas:
         • Complicated primary joint arthroplasty (eg dysplatic hip, valgus knee)
         • Revision hip and knee replacement surgery
         • Selection of appropriate implants
         • The factors affecting implant survivorship and function, including design, biomaterials, fixation and wear properties
• **Technical**
  - **Junior Resident**
    - Demonstrate proficiency in the following areas:
      - Perform arthrotomies and aspirations of the hip and knee
      - Pre-operatively plan and perform simple primary hip and knee arthroplasty with guidance
      - Recognize and manage common post-operative complications in hip and knee reconstruction surgery
  - **Senior Resident**
    - Demonstrate proficiency in the following areas:
      - Performing a difficult primary hip and knee replacement
      - Pre-operatively plan and perform simple revision hip and knee replacements
      - Perform osteotomies around the knee

2. **COMMUNICATOR**
   - **Junior Resident**
     - Listen effectively and obtain an appropriate history from patients and their families.
     - Gather information not only about the specific problem but also about the patient’s beliefs, expectations and concerns about their illness.
     - Provide information to the patient in a humane manner with language that they can understand so that they may be involved in the decision making process regarding their care.
     - Provide appropriate information to others involved in the care of the patient
     - The ability to obtain an appropriate informed consent for patients undergoing interventions.
   - **Senior Resident**
     - Maintain appropriate records which are clear and accurate
     - Provide effective consultation as requested and document the findings and care plan in a clear and effective manner

3. **COLLABORATOR**
   - **Junior Resident**
     - Consult with other health care professionals as appropriate
     - Describe the multidisciplinary approach to the arthritis patient and the role of each of the health care providers
   - **Senior Resident**
     - Clearly deliver information to patients and other health care providers such that decisions around non-surgical and surgical therapies may be made
     - Participate in the multidisciplinary care of the joint reconstruction patient
4. MANAGER
   o Junior Resident
      ▪ Understand the importance of the allocation of health care resources and how that effects wait list management
      ▪ Learn to apply evidence and management processes for cost-appropriate care
   o Senior Resident
      ▪ Understand population-based approaches to health care services
      ▪ Understand the management of a practice including finances and human resources

5. HEALTH ADVOCATE
   o Junior Resident
      ▪ Understand the determinants of health of populations, including barriers to access to care and resources
   o Senior Resident
      ▪ Understand the possibility of conflict of interest in performing the role as health advocate for a patient or community with that of being a manager or gate keeper

6. SCHOLAR
   o Junior Resident
      ▪ Understanding how to integrate new learning into practice
      ▪ Understand critical appraisal and the methods of doing a literature search
   o Senior Resident
      ▪ Pose an appropriate research question and describe the steps to answer that question
      ▪ Develop, implement and monitor a personal continuing education strategy
      ▪ Demonstrate knowledge of preferred learning methods in dealing with students, residents, and colleagues. Understand evaluation techniques and demonstrate the ability to help in the evaluation of more junior members of the team.
      ▪ Describe the process of performing a personal practice audit

7. PROFESSIONAL
   o Junior Resident
      ▪ Describe how to recognize unprofessional behavior in others and how to respond to it
      ▪ Understand the professional, legal and ethical codes of practice including physician’s relationship with industry.
      ▪ Understand the appropriate doctor patient relationship
Senior Resident
- Pose an ethical question related to research and discuss the resolution of that question
- Demonstrate professional behaviors in practice
- Understand the importance of privacy and how it relates to communication with and about patients
Arthroplasty – Senior
Rotation Specific Evaluation Orthopaedic Surgery
McMaster University

CanMEDS Roles / Competencies

<table>
<thead>
<tr>
<th>Name: ________________________      PGY____</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation Dates: _________________________</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Attending Staff: _________________________</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. MEDICAL EXPERT: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

1. Cognitive and Diagnostic - Senior Resident

1. Be competent in recognizing and assessing painful or failed hip and knee replacements, particularly with respect to infection

2. Understand the details of hip and knee reconstructive surgery for arthritis including osteotomy, arthrodesis and joint replacement

3. Understand the assessment, treatment and sequelae of complications associated with hip and knee reconstructive surgery

4. Demonstrate detailed knowledge of the following areas:
   • Complicated primary joint arthroplasty (eg dysplastic hip, valgus knee)
   • Revision hip and knee replacement surgery
   • Selection of appropriate implants
   • The factors affecting implant survivorship and function, including design, biomaterials, fixation and wear properties

A. MEDICAL EXPERT: At the conclusion of residency, the resident should meet all of the following objectives in spite of variations in rotation durations and resident exposure

2. Technical - Senior Resident - Demonstrate proficiency in:

1. Perform a difficult primary hip and knee replacement

2. Pre-operatively plan and perform simple revision hip and knee replacements

3. Perform osteotomies around the knee

4. Perform a difficult primary hip and knee replacement

5. Pre-operatively plan and perform simple revision hip and knee replacements

6. Perform osteotomies around the knee
### B. COMMUNICATOR - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. Maintain appropriate records which are clear and accurate
2. Provide effective consultation as requested and document the findings and care plan in a clear and effective manner

### C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1. Clearly deliver information to patients and other health care providers such that decisions around non-surgical therapies may be made
2. Participate in the multidisciplinary care of the joint reconstruction patient
2. Learn to apply evidence and management processes for cost-appropriate care

### D. MANAGER - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. Understand population-based approaches to health care services
2. Understand the management of a practice including finances and human resources

### E. HEALTH ADVOCATE - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Understand the possibility of conflict of interest in performing the role as health advocate for a patient or community with that of being a manager or gate keeper
<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fails to Meet</td>
<td>Meets Expectations</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**F. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.**

1. Pose an appropriate research question and describe the steps to answer that question
2. Develop, implement and monitor a personal continuing education strategy
3. Demonstrate knowledge of preferred learning methods in dealing with students, residents, and colleagues. Understand evaluation techniques and demonstrate the ability to help in the evaluation of more junior members of the team
4. Describe the process of performing a personal practice audit

**G. PROFESSIONAL - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.**

1. Pose an ethical question related to research and discuss the resolution of that question
2. Demonstrate professional behaviours in practice
3. Understand the importance of privacy and how it relates to communication with and about patients

**DESCRIPTIVE RESPONSES**

*For any items scored 0 or 1, specific comments are critical*

**Strengths:**

- 
- 
- 

**Areas for improvement:** (If remedial work is recommended - please provide specific suggestions)

- 
- 

**Comments:**

- 
- 

**ORAL EXAMINATION:**

---

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
</table>
OVERALL COMPETENCE:
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

<table>
<thead>
<tr>
<th></th>
<th>Unsatisfactory</th>
<th>Provisional Satisfactory</th>
<th>Satisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompleteness</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Were educational objectives / performance discussed with the resident:

- At the beginning of the rotation: □ Yes □ No
- At the midpoint of the evaluation: □ Yes □ No
- At the end of the rotation: □ Yes □ No

Was this evaluation completed by:

□ an individual __________________________
□ a committee ____________________________

Was input obtained from other team members? □ Yes □ No

Evaluator Signature: ____________________________ Date: ____________________________

Resident Signature: ____________________________ Date: ____________________________
Arthroplasty – Junior
Rotation Specific Evaluation Orthopaedic Surgery
McMaster University

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: ________________________</td>
<td>PGY____</td>
</tr>
<tr>
<td>Rotation Dates: ________________</td>
<td></td>
</tr>
<tr>
<td>Attending Staff: ________________</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

A. MEDICAL EXPERT: At the conclusion of residency, the resident should meet all of the following objectives in spite of variations in rotation durations and resident exposure

### 1. Cognitive and Diagnostic

1. Be able to advise patients regarding the non-operative management of hip and knee arthritis; including indications, complications and effectiveness of such treatment

2. Understand the indications, results and complications of surgery for hip and knee arthritis with respect to age, gender and activity level

3. Understand the principles of hip and knee reconstructive surgery for arthritis including osteotomy, arthrodesis and joint replacement

4. Understand the recovery and rehabilitation following hip and knee replacement

5. Understand the unique medical problems of the geriatric population

A. MEDICAL EXPERT: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

### 2. Technical - Demonstrate proficiency in:

1. Perform arthrotomies and aspirations of the hip and knee

2. Pre-operatively plan and perform simple primary hip and knee arthroplasty with guidance

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Recognize and manage common post-operative complications in hip and knee reconstruction surgery
### B. COMMUNICATOR - As Communicators, Orthopedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>1   Listen effectively and obtain an appropriate history from patients and their families</td>
<td></td>
</tr>
<tr>
<td>2   Gather information not only about the specific problem but also about the patient's beliefs, expectations and concerns about their illness</td>
<td></td>
</tr>
<tr>
<td>3   Provide information to the patient in a humane manner with language that they can understand so that they may be involved in the decision making process regarding their care</td>
<td></td>
</tr>
<tr>
<td>4   Provide appropriate information to others involved in the care of the patient</td>
<td></td>
</tr>
<tr>
<td>5   The ability to obtain an appropriate informed consent for patients undergoing interventions</td>
<td></td>
</tr>
</tbody>
</table>

### C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>1   Consult with other health care professionals as appropriate</td>
<td></td>
</tr>
<tr>
<td>2   Describe the multidisciplinary approach to the arthritis patient and the role of each of the health care providers</td>
<td></td>
</tr>
</tbody>
</table>

### D. MANAGER - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>1   Understand the importance of the allocation of health care resources and how that effects wait list management</td>
<td></td>
</tr>
<tr>
<td>2   Learn to apply evidence and management processes for cost-appropriate care</td>
<td></td>
</tr>
</tbody>
</table>

### E. HEALTH ADVOCATE - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>1   Understand the determinants of health of population, including barriers to access to care and resources</td>
<td></td>
</tr>
</tbody>
</table>

### F. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>1   Understand how to integrate new learning into practice</td>
<td></td>
</tr>
<tr>
<td>2   Understand critical appraisal and the methods of doing a literature search</td>
<td></td>
</tr>
</tbody>
</table>
### G. PROFESSIONAL

As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.

1. Describe how to recognize unprofessional behaviour in others and how to respond to it
2. Understand the professional, legal and ethical codes of practice including physician's relationship with industry
3. Understand the appropriate doctor patient relationship

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td>Marginal</td>
</tr>
<tr>
<td>G. PROFESSIONAL</td>
<td></td>
</tr>
</tbody>
</table>

#### Descriptive Responses:

<table>
<thead>
<tr>
<th>Strengths:</th>
<th>Comments:</th>
</tr>
</thead>
</table>

#### Incomplete | Unsatisfactory | Provisional Satisfactory | Satisfactory

**OVERALL COMPETENCE:** Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

**Were educational objectives / performance discussed with the resident:**

- At the beginning of the rotation: □ Yes □ No
- At the midpoint of the evaluation: □ Yes □ No
- At the end of the rotation: □ Yes □ No

**Was this evaluation completed by:** □ an individual ________________

□ a committee ________________

**Was input obtained from other team members?** □ Yes □ No
ADULT SPINE

ROTATION SPECIFIC OBJECTIVES

This document should help you with your objectives throughout your rotation. It is adapted from the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery” put forward by the Royal College of Physicians and Surgeons of Canada. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website (http://rcpsc.medical.org/).

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation. The resident and faculty supervisor are expected to review these objectives at the start, middle and finish of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT

At the conclusion of residency, the resident should meet all of the following objectives in spite of variations in rotation durations and resident exposure.

- Cognitive and Diagnostic
  - Junior Resident
    - Recognize emergency conditions (specifically acute cauda equina syndrome, acute neurological deterioration, acute traumatic spinal cord injury) with accurate prioritization
    - Recognize the significance of injury in high-risk spinal conditions such as osteoporosis, inflammatory arthritis, DISH and ankylosing spondylitis.
    - Record a complete, accurate, well-organized history specific for disorders involving the spinal column and associated neurological conditions with an emphasis on understanding the patient’s context and preferences in addition to appreciating the impact of the spinal disorder on the patient's quality of life, disability and function.
    - Perform a specific and complete physical exam for the entire spinal column and associated neurological structures with an emphasis on the assessment of deformity and dysfunction for the individual patient.
    - Develop an effective differential diagnosis based on information gathered on history and physical examination.
    - Understand and advise patients regarding non-surgical treatment options.
    - Formulate a management plan including appropriate frequency and goals of outpatient follow-up for patients managed surgically and non-surgically.
    - Participate in pre-operative planning for patients scheduled for surgery.
    - Understand the indications for spine surgery relative to the affecting pathophysiology.
Understand the risks, complications and expected outcomes of common spine procedures.

- **Senior Resident**
  - Demonstrate a familiarity with contemporary spine literature.
  - Demonstrate the ability to interpret contemporary spinal radiological investigations.
  - Provide a treatment plan for common disorders of the spine.
  - Demonstrate a thorough knowledge of anterior and posterior surgical approaches to the cervical, thoracic and lumbar spine.
  - Demonstrate knowledge of basic principles of spine arthrodesis including an understanding of the role of spinal instrumentation and stabilization.

- **Technical**
  - **Junior Resident**
    - Demonstrate proficiency in:
      - Patient positioning, prepping, and draping for anterior and posterior spine surgery.
      - Proficiency in applying external fixation devices (tongs, halos)
      - Bone graft harvesting techniques
      - Posterior spinal approaches
      - Recognize and manage common post-operative complications and initiate treatment.
  - **Senior Resident**
    - Demonstrate proficiency in the following areas:
      - Performing a primary lumbar discectomy for relief of radicular symptoms/signs.
      - Performing a primary cervical, thoracic, lumbar laminectomy either for urgent or elective decompression of central or peripheral neurologic structures
      - Performing a primary posterior instrumented lumbar fusion.
      - In closed reduction techniques and using external fixation devices (tongs, halos)

2. **Communicator**

- Maintain clear, accurate and organized patient records in both in-patient and outpatient settings.
- Discuss the patient's beliefs, concerns, illness experience and specifically focus on the patient's expectations in terms of pain relief and improved function.
- Include other relevant sources of information from the patient's family, caregivers and other professionals when appropriate.
- Deliver information to a patient and family, colleagues and other professionals in a humane manner particularly as it relates to end-of-life discussions in spine metastases, spinal cord injury and/or complications post-spine surgery.
- Encourage patients, families and relevant health professionals in shared decision making specifically as it relates to treatment.
- Perform clear and succinct oral presentations
- The ability to obtain an appropriate informed consent for patients undergoing interventions.

3. COLLABORATOR
   - Participate in an interdisciplinary spine team, demonstrating the ability to accept, consider and respect the opinions of the other team members, while contributing spine specific expertise.
   - Demonstrate an understanding of the role for complimentary and alternative forms of therapy.

4. MANAGER
   - Participate in systemic quality process evaluation and improvement such as patient safety initiatives, multidisciplinary spine rounds or morbidity / mortality rounds.
   - Learn time management for clinical activity, learning needs, family needs and recreational activities.

5. HEALTH ADVOCATE
   - Have knowledge of population-based approaches to spine health care services and their implication for medical practice particularly focusing on topics such as industrial low back pain, epidemiology of spine trauma, ergonomic issues and spine injury prevention.
   - Demonstrate knowledge of public policy for spine health and identify current policies and preventative measures that affect spine health.

6. SCHOLAR
   - Demonstrate critical appraisal of the literature as it applies to spine health and discuss how this might apply to clinical practice
   - Demonstrate an understanding of effective teaching techniques.

7. PROFESSIONAL
   - Fulfill medical, legal and professional obligations as they relate to spine pathology particularly as it relates to occupational spinal injuries and traumatic spinal injuries.
   - Meet deadlines and be punctual.
   - Demonstrate self-assessment, insight into limitations and accept feedback when necessary.
**A. MEDICAL EXPERT:** As Medical Experts, Orthopedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

1. **Cognitive and Diagnostic - Junior Resident**

<table>
<thead>
<tr>
<th></th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Recognize emergency conditions (specifically acute cauda equina syndrome, acute neurological deterioration, acute traumatic spinal cord injury) with accurate prioritization</td>
</tr>
<tr>
<td>2</td>
<td>Recognize the significance of injury in high-risk spinal conditions such as osteoporosis, inflammatory arthritis, DISH and ankylosing spondylitis</td>
</tr>
<tr>
<td>3</td>
<td>Record a complete, accurate, well-organized history specific for disorders involving the spinal column and associated neurological conditions with an emphasis on understanding the patient’s context and preferences in addition to appreciating the impact of the spinal disorder on the patient's quality of life, disability and function</td>
</tr>
<tr>
<td>4</td>
<td>Perform a specific and complete physical exam for the entire spinal column and associated neurological structures with an emphasis on the assessment of deformity and dysfunction for the individual patient</td>
</tr>
<tr>
<td>5</td>
<td>Develop an effective differential diagnosis based on information gathered on history and physical examination</td>
</tr>
<tr>
<td>6</td>
<td>Understand and advise patients regarding non-surgical treatment options</td>
</tr>
<tr>
<td>7</td>
<td>Formulate a management plan including appropriate frequency and goals of outpatient follow-up for patients managed surgically and non-surgically</td>
</tr>
<tr>
<td>8</td>
<td>Participate in pre-operative planning for patients scheduled for surgery</td>
</tr>
<tr>
<td>9</td>
<td>Understand the indications for spine surgery relative to the affecting pathophysiology</td>
</tr>
<tr>
<td>10</td>
<td>Understand the risks, complications and expected outcomes of common spine procedures</td>
</tr>
<tr>
<td>CanMEDS Roles / Competencies</td>
<td>Expectations</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>A. MEDICAL EXPERT: At the conclusion of residency, the resident should meet all of the following objectives in spite of variations in rotation durations and resident exposure</td>
<td>0</td>
</tr>
<tr>
<td>2. Technical - Junior Resident - Demonstrate proficiency in:</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Patient positioning, prepping, and draping for anterior and posterior spine surgery</td>
</tr>
<tr>
<td>2</td>
<td>Proficiency in applying external fixation devices (tongs, halos)</td>
</tr>
<tr>
<td>3</td>
<td>Bone graft harvesting techniques</td>
</tr>
<tr>
<td>4</td>
<td>Posterior spinal approaches</td>
</tr>
<tr>
<td>5</td>
<td>Recognize and manage common post-operative complications and initiate treatment</td>
</tr>
<tr>
<td>B. COMMUNICATOR - As Communicators, Orthopedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Maintain clear, accurate and organized patient records in both inpatient and outpatient settings</td>
</tr>
<tr>
<td>2</td>
<td>Discuss the patient's beliefs, concerns, illness experience and specifically focus on the patient's expectations in terms of pain relief and improved function</td>
</tr>
<tr>
<td>3</td>
<td>Include other relevant sources of information from the patient's family, caregivers and other professionals when appropriate</td>
</tr>
<tr>
<td>4</td>
<td>Deliver information to a patient and family, colleagues and other professionals in a humane manner particularly as it relates to end-of-life discussions in spine metastases, spinal cord and/or complications post-spine surgery</td>
</tr>
<tr>
<td>5</td>
<td>Encourage patients, families and relevant health professionals in shared decision making specifically as it relates to treatment</td>
</tr>
<tr>
<td>6</td>
<td>Perform clear and succinct oral presentations</td>
</tr>
<tr>
<td>7</td>
<td>The ability to obtain an appropriate informed consent for patients undergoing interventions</td>
</tr>
<tr>
<td>C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participate in an interdisciplinary spine team, demonstrating the ability to accept, consider and respect the opinions of the other team members, while contributing spine specific expertise</td>
</tr>
<tr>
<td>2</td>
<td>Demonstrate an understanding of the role for complimentary and alternative forms of therapy</td>
</tr>
<tr>
<td>D. MANAGER - As Managers, Orthopedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participate in systematic quality process evaluation and improvement such as patient safety initiatives, multidisciplinary spine rounds or morbidity/mortality rounds</td>
</tr>
<tr>
<td>2</td>
<td>Learn time management for clinical activity, learning needs, family needs and recreational activities</td>
</tr>
</tbody>
</table>
### CanMEDS Roles / Competencies

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

#### E. HEALTH ADVOCATE
As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Have knowledge of population-based approaches to spine health care services and their implication for medical practice particularly focusing on topics such as industrial low back pain, epidemiology of spine trauma, ergonomic issues and spine injury prevention.

2. Demonstrate knowledge of public policy for spine health and identify current policies and preventative measures that affect spine health.

#### F. SCHOLAR
As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. Demonstrate critical appraisal of the literature as it applies to spine health and discuss how this might apply to clinical practice.

2. Demonstrate an understanding of effective teaching techniques.

#### G. PROFESSIONAL
As Professionals, Orthopedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

1. Fulfill medical, legal and professional obligations as they relate to spine pathology, particularly as it relates to occupational spine injuries and traumatic spinal injuries.

2. Meet deadlines and be punctual.

3. Demonstrate self-assessment, insight into limitations and accept feedback when necessary.

### Descriptive Responses:

#### Strengths:

#### Comments:

### OVERALL COMPETENCE:
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

### Were educational objectives / performance discussed with the resident:

At the beginning of the rotation: ☐ Yes ☐ No
**CanMEDS Roles / Competencies**

| To be completed by __________________________ |
| On this form, you will be evaluating ______________________ |
| For dates: ______________ to _________________ |

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td>Marginal</td>
</tr>
<tr>
<td>A. MEDICAL EXPERT: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework. Technical - Senior Resident - Demonstrate proficiency in:</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Performing a primary lumbar discectomy for relief of radicular symptoms/signs</td>
</tr>
<tr>
<td>2</td>
<td>Performing a primary cervical, thoracic, lumbar laminectomy either for urgent or elective decompression of central or peripheral neurologic structures</td>
</tr>
<tr>
<td>3</td>
<td>Performing a primary posterior instrumented lumbar fusion</td>
</tr>
<tr>
<td>4</td>
<td>In closed reduction techniques and using external fixation devices (tongs, halos)</td>
</tr>
</tbody>
</table>

**Cognitive and Diagnostic**

| 1 | Demonstrate a familiarity with contemporary spine literature |
| 2 | Demonstrate the ability to interpret contemporary spinal radiological investigations |
| 3 | Provide a treatment plan for common disorders of the spine |
| 4 | Demonstrate a thorough knowledge of anterior and posterior surgical approaches to the cervical, thoracic and lumbar spine |
| 5 | Demonstrate knowledge of basic principles of spine arthrodesis including an understanding of the role of spinal instrumentation and stabilization |

**B. COMMUNICATOR - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.**

<p>| 1 | Maintain clear, accurate and organized patient records in both inpatient and outpatient settings |
| 2 | Discuss the patient's beliefs, concerns, illness experience and specifically focus on the patient's expectations in terms of pain relief and improved function |
| 3 | Include other relevant sources of information from the patient's family, caregivers and other professionals when appropriate |
| 4 | Deliver information to a patient and family, colleagues and other professionals in a humane manner particularly as it relates to end-of-life discussions in spine metastases, spinal cord and/or complications post-spine surgery |
| 5 | Encourage patients, families and relevant health professionals in shared decision making specifically as it relates to treatment |</p>
<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Perform clear and succinct oral presentations</td>
</tr>
<tr>
<td>7</td>
<td>The ability to obtain an appropriate informed consent for patients undergoing interventions</td>
</tr>
</tbody>
</table>

**C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.**

1. Participate in an interdisciplinary spine team, demonstrating the ability to accept, consider and respect the opinions of the other team members, while contributing spine specific expertise

2. Demonstrate an understanding of the role for complimentary and alternative forms of therapy

**D. MANAGER - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.**

1. Participate in systematic quality process evaluation and improvement such as patient safety initiatives, multidisciplinary spine rounds or morbidity/mortality rounds

2. Learn time management for clinical activity, learning needs, family needs and recreational activities

**E. HEALTH ADVOCATE - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.**

1. Have knowledge of population-based approaches to spine health care services and their implication for medical practice particularly focusing on topics such as industrial low back pain, epidemiology of spine trauma, ergonomic issues and spine injury prevention

2. Demonstrate knowledge of public policy for spine health and identify current policies and preventative measures that affect spine health

**F. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.**

1. Demonstrate critical appraisal of the literature as it applies to spine health and discuss how this might apply to clinical practice

2. Demonstrate an understanding of effective teaching techniques

**G. PROFESSIONAL - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.**

1. Fulfill medical, legal and professional obligations as they relate to spine pathology, particularly as it relates to occupational spine injuries and traumatic spinal injuries

2. Meet deadlines and be punctual

3. Demonstrate self-assessment, insight into limitations and accept feedback when necessary
Descriptive Responses:

**Strengths:**

<table>
<thead>
<tr>
<th>Incomplete</th>
<th>Unsatisfactory</th>
<th>Provisional Satisfactory</th>
<th>Satisfactory</th>
</tr>
</thead>
</table>

**OVERALL COMPETENCE:**

Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

**Were educational objectives / performance discussed with the resident:**

- At the beginning of the rotation:  □ Yes  □ No
- At the midpoint of the evaluation: □ Yes  □ No
- At the end of the rotation: □ Yes  □ No

**Was this evaluation completed by:**  □ an individual

□ a committee

**Was input obtained from other team members?**  □ Yes  □ No
TRAUMA

ROTATION SPECIFIC OBJECTIVES

This document should help you with your objectives throughout your rotation. It is adapted from the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery” put forward by the Royal College of Physicians and Surgeons of Canada. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website (http://rcpsc.medical.org/).

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation. The resident and faculty supervisor are expected to review these objectives at the start, middle and finish of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT
   • Cognitive & Diagnostic
     o Junior Resident
       ▪ Polytrauma patient
       ▪ Initial ATLS management
       ▪ Prioritization of injuries in trauma patients
       ▪ The principles of open fracture management
       ▪ Recognition of dysvascular limb and compartment syndrome
       ▪ Understand the importance of pelvic fractures
       ▪ Demonstrate knowledge of the concepts of “damage control orthopedics” vs. “early total care”
       ▪ Isolated limb trauma
       ▪ Principles of the management of:
         ▪ Fractures, dislocations and fracture dislocation with appropriate splintage
         ▪ Intraarticular fracture management
         ▪ Associated soft tissue injury
         ▪ Compartment syndrome
         ▪ Dysvascular limb
         ▪ Acute infection
         ▪ Malunion, nonunion, late infection
         ▪ Segmental bone loss
       ▪ An understanding of associated conditions
         ▪ Adult respiratory distress syndrome
         ▪ DVT
         ▪ Fat and pulmonary embolism
         ▪ Multiple organ system failure
         ▪ Chronic regional pain syndrome
         ▪ Awareness and recognition of:
o non-accidental trauma
o issues related to geriatric fractures
o pathologic fractures

o Senior Resident
  ▪ In addition to the junior objectives, a senior resident will be expected to integrate detailed knowledge as demonstrated by an ability to formulate a comprehensive treatment plan for the traumatized patient.
  ▪ Insufficiency fractures

• Technical
  o Junior Resident
  ▪ Initial management of fractures and dislocations with appropriate reduction and splinting
  ▪ Develop competencies as a surgical assistant, knowledge of the surgical approaches, handling soft tissues and appropriate wound closures.
  ▪ Proficiency in the use of orthopaedic equipment, and power instruments used in the management of the trauma patient.
  ▪ Technical skills involved in ATLS protocol
  ▪ Operative management of simple fractures – ankle, wrist, hip
  ▪ Management of compartment syndrome and acute infection

  o Senior Resident
  ▪ Should be competent in basic techniques of fracture fixation and soft tissue management including open fractures.
  ▪ Develop competence in basic surgical procedures of the traumatic patient including operative management of single limb trauma and polytraumatic injuries including:
    • Intramedullary nailing of long bone fractures,
    • Open reduction and internal fixation of diaphyseal, metaphyseal and articular fractures using standard AO techniques
    • Techniques of external fixation for certain injuries including: intra-articular fractures with poor soft-tissues (knee and ankle joints), pelvic fractures, distal radius fractures, knee dislocations.
    • Open reduction of irreducible joint dislocations
    • Planning and surgical management of malunion, nonunion and chronic infection

2. COMMUNICATOR
  o Junior Resident
  ▪ Demonstrate skills in working with patients and families who present with communication challenges such as anger, confusion, and issues related to gender, ethnicity, cultural and religious background. This would also involve communication with those with traumatic brain injury and critical injuries.
- Deliver information including options of care, possible complications and long term prognosis in a humane and understandable way. The resident should encourage discussion and participation in developing a treatment plan. This will lead to obtaining informed consent.
- Demonstrate skill in communicating with other members of the trauma team and other health care personnel involved in the care of the traumatized patients.
- Communicate effectively with appropriate consultants and synthesize their input into the care plan.
- Clearly document the patient encounter including trauma records, progress notes, operative notes and discharge summaries.
- The ability to obtain an appropriate informed consent for patients undergoing interventions.

  o **Senior Resident**
    - Will demonstrate the ability to deliver bad news in a humane and compassionate manner.
    - Will be able to verbally present the findings and care plan for the patient.

3. **COLLABORATOR**
   o **Junior Resident**
     - Understand the importance of the multidisciplinary trauma team and describe their roles.
     - Effectively work as a member of the trauma team both acutely and in the long term management of the trauma patient.
     - Learn to resolve interpersonal conflict.

   o **Senior Resident**
     - Understand community resources available to aid in the management of trauma patients and communicate effectively with those individuals or groups.

4. **MANAGER**
   o **Junior Resident**
     - Understand the importance of allocation of resources for the trauma patient and prioritize care.
     - Understand provincial trauma programs.

   o **Senior Resident**
     - Set priorities and manage time to balance patient care, educational activities and personal life.
     - Understand health care funding as it relates to trauma care and the principle of cost-appropriate care.
5. HEALTH ADVOCATE
   o Junior Resident
     ▪ Understand the life style issues and different work place environments that lead to an increased risk of trauma
     ▪ Describe the appropriate provincial legislation relating to decreasing trauma risk
   o Senior Resident
     ▪ Describe a plan to decrease the risk of trauma in their community
     ▪ Advocate for the health of their community to include seat belt legislation, use of helmets for high risk sports and the treatment and prevention of osteoporosis.

6. SCHOLAR
   o Junior Resident
     ▪ The resident will pose a learning question and do an appropriate literature search, they will then interpret this evidence and suggest a change in practice if necessary
     ▪ Present an effective lecture or presentation
   o Senior Resident
     ▪ Understand the principles of Continuing Professional Development
     ▪ Understand critical appraisal and demonstrate the ability to critically review an appropriate article in the trauma literature
     ▪ Demonstrate effective teaching techniques

7. PROFESSIONAL
   o Junior Resident
     ▪ Describe informed consent and alternative consent givers
     ▪ Maintain patient confidentiality and describe the limits as defined by professional practice standards and the law
   o Senior Resident
     ▪ Manage any conflict of interest that arises
     ▪ Understand and demonstrate the importance of balancing personal and professional priorities to ensure personal health and sustainable practice.
To be completed by __________________________
On this form, you will be evaluating __________________
For dates: ___________ to _____________

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>0 1 2 3 4</td>
<td></td>
</tr>
</tbody>
</table>

A. MEDICAL EXPERT: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

1. Cognitive and Diagnostic - Junior Resident

1 Polytrauma patients
   - Initial ATLS management
   - Prioritization of injuries in trauma patients

2 The principles of open fracture management

3 Recognition of dysvascular limb and compartment syndrome

4 Understand the importance of pelvic fractures

5 Demonstrate knowledge of the concepts of "damage control orthopaedics" vs "early total care"

6 Isolated limb trauma

7 Principles of the management of:
   - Fractures, dislocations and fracture dislocation with appropriate splintage
   - Intraarticular fracture management
   - Associated soft tissue injury
   - Compartment syndrome
   - Dysvascular limb
   - Acute infection
   - Malunion, nonunion, late infection
   - Segemental bone loss

8 An understanding of associated conditions:
   - Adult respiratory distress syndrome
   - DVT
   - Fat and pulmonary embolism
   - Multiple organ system failure
   - Chronic regional pain syndrome
   - Awareness and recognition of
   - non-accidental trauma
   - issues related to geriatric fractures
   - pathologic fractures

B. COMMUNICATOR - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1 Will demonstrate the ability to deliver bad news in a humane and compassionate manner

2 Will be able to verbally present the findings and care plan for the patient

C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1 Understand the importance of the multidisciplinary trauma team and describe their roles
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Effectively work as a member of the trauma team both acutely and in the long term management of the trauma patient</td>
</tr>
<tr>
<td>3</td>
<td>Learn to resolve interpersonal conflict</td>
</tr>
<tr>
<td>CanMEDS Roles / Competencies</td>
<td>Expectations</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Fails to Meet</td>
<td>Meets Expectations</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

### D. MANAGER - As Managers
Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. Understand the importance of allocation of resources for the trauma patient and prioritize care
2. Understand provincial trauma programs

### E. HEALTH ADVOCATE - As Health Advocates
Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Understand the lifestyle issues and different workplace environments that lead to an increased risk of trauma
2. Describe the appropriate provincial legislation relating to decreasing trauma risk

### F. SCHOLAR - As Scholars
Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. The resident will pose a learning question and do an appropriate literature search, they will then interpret this evidence and suggest a change in practice if necessary
2. Present an effective lecture or presentation

### G. PROFESSIONAL - As Professionals
Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.

1. Describe informed consent and alternative consent givers
2. Maintain patient confidentiality and describe the limits as defined by professional practice standards and law
7. The ability to obtain an appropriate informed consent for patients undergoing interventions

**DESCRIPTIVE RESPONSES**

*For any items scored 0 or 1, specific comments are critical.*

1. **Strengths:**

2. **Areas for improvement:** (If remedial work is recommended - please provide specific suggestions)

3. **Comments:**

**ORAL EXAMINATION:**
<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incomplete</td>
</tr>
<tr>
<td>OVERALL COMPETENCE:</td>
<td></td>
</tr>
<tr>
<td>Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.</td>
<td></td>
</tr>
</tbody>
</table>

**Were educational objectives / performance discussed with the resident:**

- At the beginning of the rotation:  □ Yes  □ No
- At the midpoint of the evaluation: □ Yes  □ No
- At the end of the rotation:       □ Yes  □ No

**Was this evaluation completed by:** □ an individual

□ a committee

**Was input obtained from other team members?** □ Yes  □ No
Trauma – PGY4 or 5  
Rotation Specific Evaluation Orthopedic Surgery  
McMaster University

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be completed by __________</td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>On this form, you will be evaluating __________________</td>
<td>Meets Expectations</td>
</tr>
<tr>
<td>For dates: __________ to __________</td>
<td>Exceeds</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

| 0 | 1 | 2 | 3 | 4 |

A. MEDICAL EXPERT: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

1. Cognitive and Diagnostic - Senior Resident

1. In addition to the junior objectives, a senior resident will be expected to integrate detailed knowledge as demonstrated by an ability to formulate a comprehensive treatment plan for the traumatized patient

2. Insufficiency fractures

3. Deliver information including options of care, possible complications and long-term prognosis in a humane and understandable way. The resident should encourage discussion and participation in developing a treatment plan. This will lead to obtaining informed consent

4. Demonstrate skill in communicating with other members of the trauma team and other health care personnel involved in the care of the traumatized patient

5. Communicate effectively with appropriate consultants and synthesize their input into the care plan

6. Clearly document the patient encounter including trauma records, progress notes, operative notes and discharge summaries

7. The ability to obtain an appropriate informed consent for patients undergoing interventions

B. COMMUNICATOR - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. Will demonstrate the ability to deliver bad news in a humane and compassionate manner

2. Will be able to verbally present the findings and care plan for the patient

C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1. Understand community resources available to aid in the management of trauma patients and communicate effectively with those individuals or groups

D. MANAGER - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. Set priorities and manage time to balance patient care, educational activities and personal life

2. Understand health care funding as it relates to trauma care and the principle of cost-appropriate care

E. HEALTH ADVOCATE - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Describe a plan to decrease the risk of trauma in their community
Advocate for the health of their community to include seat belt legislation, use of helmets for high risk sports and the treatment and prevention of osteoporosis.

F. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. Understand the principles of Continuing Professional Development
2. Understand critical appraisal and demonstrate the ability to critically review an appropriate article in the trauma literature
3. Demonstrate effective teaching techniques

G. PROFESSIONAL - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.

1. Manage any conflict of interest that arises
2. Understand and demonstrate the importance of balancing personal and professional priorities to ensure personal health and sustainable practice

DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical.

1. Strengths:

2. Areas for improvement: (If remedial work is recommended - please provide specific suggestions)

3. Comments:

ORAL EXAMINATION:

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incomplete</td>
</tr>
</tbody>
</table>

OVERALL COMPETENCE:
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Were educational objectives / performance discussed with the resident:

At the beginning of the rotation: ☐ Yes ☐ No
At the midpoint of the evaluation: ☐ Yes ☐ No
This document should help you with your objectives throughout your rotation. It is adapted from the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery” put forward by the Royal College of Physicians and Surgeons of Canada. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website (http://rcpsc.medical.org/).

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation. The resident and faculty supervisor are expected to review these objectives at the start, middle and finish of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT
   • Cognitive & Diagnostic
     o Junior Resident
       ▪ Understand normal musculoskeletal anatomy, growth, and development in the child including common angular and torsional variants
       ▪ Understand the anatomy and pathologic basis of the disorders leading to a limp in a child
       ▪ Understands the mechanisms, patterns, assessment, management, and potential complications related to common paediatric fractures and dislocations
       ▪ Recognition and management of common overuse syndromes
       ▪ Recognition of non-accidental trauma and pathologic fractures
       ▪ Demonstrate knowledge of specific surgical approaches as relates to the paediatric population
       ▪ Understands the mechanisms, patterns, assessment, management, and potential complications related to osteomyelitis and septic arthritis
       ▪ Understand the principles of management of children with:
         • Common hip disorders
         • Common foot disorders
         • Angular and torsional deformities
         • Limb length discrepancy
       ▪ Understand the principles of diagnosis and assessment of paediatric neoplasia
     o Senior Resident
       ▪ Understand the principles of management of children with:
         • Complex neuromuscular disease
         • Congenital musculoskeletal deformities
• Spinal deformities
• Metabolic bone disease/skeletal dysplasia
• Paediatric neoplasia

- Understand mechanisms, patterns, assessment, management, and potential complications related to complex paediatric fractures and dislocations
- Understand the anatomy, pathology, assessment, and management complex hip disorders
- Understand the principles of management of paediatric polytrauma
- Understand the principles of operative management of:
  • hip dysplasia in normal and neuromuscular patients
  • clubfeet
  • spinal deformity

**Technical**

- **Junior Resident**
  - Assessment and management of simple fractures including appropriate analgesia/anesthesia techniques
  - Demonstrate proficiency in clinical examination in the following areas:
    • assess the limping child
    • the hips of infants and children including Barlow and Ortolani maneuvers
    • General limb length
    • Scoliosis examination
  - Demonstrate the ability to:
    • perform percutaneous pinning of fractures
    • apply skin and skeletal traction
    • apply a Pavlik harness

- **Senior Resident**
  - Assessment and management of complex paediatric fractures including:
    • physeal injuries
    • compound fractures
    • multiple trauma
    • compartment syndrome, and neurovascular compromise
  - carry out non operative treatment of children’s clubfoot
  - Operative management of:
    • Septic arthritis including arthrogram and arthrotomy
    • Osteomyelitis
    • Slipped capital femoral epiphysis
  - Management of benign bone conditions
  - Perform appropriate investigation including biopsy for suspected paediatric neoplasia
  - Demonstrate the ability to apply a hip spica cast

2. **COMMUNICATOR**

- Understands the role of communication in fostering patient satisfaction and compliance as it relates to pediatrics, parents and care givers
Elicits psychosocial information pertinent to the health of the patient including; socioeconomic background, ethnic, cultural, and spiritual values
Demonstrates the ability to deliver information to the pediatric patient and their support group in a way which is understandable
Understands and obtains informed consent using medical knowledge and awareness of current consent legislation and the Canada Health Act
Demonstrate the ability to describe procedures to the pediatric patient and patient support group
The ability to obtain an appropriate informed consent for patients undergoing interventions.

3. COLLABORATOR
   o Junior Resident
     ▪ Demonstrate an understanding of the unique collaborative nature of pediatric care
     ▪ Understand and develops patient care plan with other members of the interprofessional health care team
     ▪ demonstrate the ability to work within an inter professional team in regards to research and administrative duties

   o Senior Resident
     ▪ Demonstrate the ability to lead an inter professional team
     ▪ Develop a care plan, integrate all members of the team needed and follow the plan to completion in regards to medical or nonmedical issues around the care of the pediatric orthopedic patient

4. MANAGER
   o Junior Resident
     ▪ Access and allocate finite health care efficiently within a health care organization
     ▪ Understand the structure, financing, and operation of the health care system and function effectively within it

   o Senior Resident
     ▪ Lead the physician team and allocate manpower resources in regards patient care
     ▪ Understand the role of the physician in regards to administrative duties in the health care
     ▪ Demonstrate the ability to manage time allocation to inter and intra personal learning and duties
5. HEALTH ADVOCATE
   o Junior Resident
     ▪ recognizes and understands the psychological, social, and physical determinants of patient health
     ▪ Understand patient advocacy issues in regards to family, care giver and social care network
     ▪ Understands the medico legal obligations associated with non accidental trauma
     ▪ Recognize the emotional stress for patients and families faced with orthopedic conditions and optimize psychosocial support network for the pediatric patient
   o Senior Resident
     ▪ Promotion of the determinants of health in the community at large as it relates to the pediatric population
     ▪ Demonstrate the knowledge of resources available to those patients in need of community based care
     ▪ Understand the role of community based advocacy in regards to patients with special needs
     ▪ Demonstrate the need to serve as a patient advocate for scarce resources for the patient with special needs

6. SCHOLAR
   o Junior Resident
     ▪ Demonstrates ability for self directed learning and critical appraisal of the literature
     ▪ Demonstrate stratified level of knowledge of pediatric orthopedics with teaching of the junior members of the pediatric health care team
     ▪ Recognize gaps in knowledge and implement a plan to improve their knowledge base
   o Senior Resident
     ▪ Demonstrates the ability to resolve previously identified deficits in knowledge and technical skills
     ▪ Identify possible areas of research in pediatric orthopedics
     ▪ Continue to develop teaching models for patient and colleague education

7. PROFESSIONAL
   o Junior Resident
     ▪ Demonstrates the ability to work within the scope of clinical and technical acumen and obtains responsible and timely patient referrals
     ▪ Practice ethically consistent with the obligations of a physician and expectation of the community in regards to gender, culture, ethnicity, race, spiritual values and socioeconomic standard
     ▪ Demonstrates the ability to put patient and parents at ease and inspire confidence in the treatment plan
o **Senior Resident**
  - provides efficient, authoritative consultation to the referring source
  - Serve as a role model to the junior members of the health care team in regards to a balance between professional and personal roles.
  - Understand the legislation in regards to treatment of the pediatric patient or patients otherwise unable to understand the scope of treatment needed for care
  - Demonstrates ability to identify and remediate weakness in their managerial, administrative or education skills in regards to care of the pediatric patient
### A. MEDICAL EXPERT: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

#### 1. Cognitive and Diagnostic

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Fails to Meet</th>
<th>Marginal</th>
<th>Satisfactory Progress</th>
<th>Fully</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be completed by ________________</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>On this form, you will be evaluating ________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For dates: _______________ to _______________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Understand normal musculoskeletal anatomy, growth and development in the child including common angular and torsional variants

2. Understand the anatomy and pathologic basis of the disorders leading to a limp in a child

3. Understand the mechanisms, patterns, assessment, management, and potential complications related to common pediatric fractures and dislocations

4. Recognition and management of common overuse syndromes

5. Recognition of non-accidental trauma and pathologic fractures

6. Demonstrate knowledge of specific surgical approaches as it relates to the pediatric population

7. Understand the mechanisms, patterns, assessment, management, and potential complications related to osteomyelitis and septic arthritis

8. Understand the principles of management of children with:
   - Common hip disorders
   - Common foot disorders
   - Angular and torsional deformities
   - Limb length discrepancy

9. Understand the principles of diagnosis and assessment of pediatric neoplasia

10. Interpretation of imaging and other diagnostic tools specific to the pediatric population

### A. MEDICAL EXPERT: At the conclusion of residency, the resident should meet all of the following objectives in spite of variations in rotation durations and resident exposure

#### 2. Technical

1. Assessment and management of simple fractures including appropriate analgesia/anesthesia techniques

2. Demonstrate proficiency in clinical examination in the following areas:
   - assess the limping child
CanMEDS Roles / Competencies

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>• the hips of infants and children including Barlow and Ortolani maneuvers</td>
<td></td>
</tr>
<tr>
<td>• general limb length</td>
<td></td>
</tr>
<tr>
<td>• scoliosis examination</td>
<td></td>
</tr>
<tr>
<td>3 Demonstrate the ability to:</td>
<td></td>
</tr>
<tr>
<td>• perform percutaneous pinning of fractures</td>
<td></td>
</tr>
<tr>
<td>• apply skin and skeletal traction</td>
<td></td>
</tr>
<tr>
<td>• apply a Pavlik harness</td>
<td></td>
</tr>
</tbody>
</table>

B. COMMUNICATOR - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. Understands the role of communication in fostering patient satisfaction and compliance as it relates to pediatrics, parents and caregivers
2. Elicits psychosocial information pertinent to the health of the patient including: socioeconomic background, ethnic, cultural, and spiritual values
3. Demonstrates the ability to deliver information to the pediatric patient and their support group in a way which is understandable
4. Understands and obtains informed consent using medical knowledge and awareness of current consent legislation and the Canada Health Act
5. Demonstrates the ability to describe procedures to the pediatric patient and patient support group
6. Demonstrates the ability to obtain an appropriate informed consent for patients undergoing interventions

C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1. Demonstrate an understanding of the unique collaborative nature of pediatric care
2. Understand and develops patient care plan with other members of the interprofessional healthcare team
3. Demonstrates the ability to work within an interprofessional team in regards to research and administrative duties

D. MANAGER - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. Access and allocate finite health care efficiently within a healthcare organization
2. Understand the structure, financing, and operation of the healthcare system and function effectively within it
3. Demonstrate the ability to manage time allocation to inter and intra personal learning and duties

E. HEALTH ADVOCATE - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Recognizes and understands the psychological, social, and physical determinants of patient health
<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>2. Understand patient advocacy issues in regards to family, caregiver and social care network</td>
<td></td>
</tr>
<tr>
<td>3. Understands the medico-legal obligations associated with non-accidental trauma</td>
<td></td>
</tr>
<tr>
<td>4. Recognize the emotional stress for patients and families faced with orthopaedic conditions and optimize psychosocial support network for the pediatric patient</td>
<td></td>
</tr>
</tbody>
</table>

F. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. Demonstrates ability for self-directed learning and critical appraisal of the literature
2. Demonstrate stratified level of knowledge of pediatric orthopaedics with teaching of the junior members of the pediatric healthcare team
3. Recognize gaps in knowledge and implement a plan to improve their knowledge base

G. PROFESSIONAL - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.

1. Demonstrates the ability to work within the scope of clinical and technical acumen and obtains responsible and timely patient referrals
2. Practice ethically consistent with the obligations of a physician and expectation of the community in regards to gender, culture, ethnicity, race, spiritual values and socioeconomic standard
3. Demonstrates the ability to put patient and parents at ease and inspire confidence in the treatment plan
DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical.

1  **Strengths:**

2  **Areas for improvement:** (If remedial work is recommended - please provide specific suggestions)

3  **Comments:**

**ORAL EXAMINATION:**

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incomplete</td>
</tr>
</tbody>
</table>

**OVERALL COMPETENCE:**

Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

**Were educational objectives / performance discussed with the resident:**

At the beginning of the rotation:  □ Yes        □ No
At the midpoint of the evaluation: □ Yes        □ No
At the end of the rotation:      □ Yes        □ No

**Was this evaluation completed by:** □ an individual ________________________________

□ a committee ________________________________

**Was input obtained from other team members?** □ Yes        □ No
# Pediatric Orthopedics
## Rotation Specific Evaluation Orthopedic Surgery
### McMaster University
#### PGY5 Evaluation

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be completed by________________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On this form, you will be evaluating____________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For dates:____________________ to ______________________</td>
<td></td>
<td>0</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### A. MEDICAL EXPERT: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

#### 1. Cognitive and Diagnostic - Senior Resident

1. Understand the principles of management of children with:
   - Complex neuromuscular disease
   - Congenital musculoskeletal deformities
   - Spinal deformities
   - Metabolic bone disease/skeletal dysplasia
   - Pediatric neoplasia

2. Understand mechanisms, patterns, assessment, management, and potential complications related to complex pediatric fractures and dislocations

3. Understand the anatomy, pathology, assessment, and management of complex hip disorders

4. Understand the principles of management of pediatric polytrauma

5. Understand the principles of operative management of:
   - Hip dysplasia in normal and neuromuscular patients
   - Clubfoot
   - Spinal deformity

### A. MEDICAL EXPERT: At the conclusion of residency, the resident should meet all of the following objectives in spite of variations in rotation durations and resident exposure

#### 2. Technical - Senior Resident

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment and management of complex pediatric fractures including</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| - physeal injuries
| - compound fractures
| - multiple trauma |               | 0            | 1 2 3 4           |         |     |


<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Understands the role of communication in fostering patient satisfaction and compliance as it relates to pediatrics, parents and caregivers</td>
<td>0</td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
</tr>
<tr>
<td>2 Elicits psychosocial information pertinent to the health of the patient including: socioeconomic background, ethnic, cultural, and spiritual values</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3 Demonstrates the ability to deliver information to the pediatric patient and their support group in a way which is understandable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Understands and obtains informed consent using medical knowledge and awareness of current consent legislation and the Canada Health Act</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Demonstrates the ability to describe procedures to the pediatric patient and patient support group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Demonstrates the ability to obtain an appropriate informed consent for patients undergoing interventions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Demonstrate the ability to lead an interprofessional team</td>
<td>0</td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
</tr>
<tr>
<td>2 Develop a care plan, integrate all members of the team needed and follow the plan to completion in regards to medical or non-medical issues around the care of the pediatric orthopaedic patient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**D. MANAGER** - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
1.  Lead the physician team and allocate manpower resources in regards to patient care | | | | | |
2.  Understand the role of the physician in regards to administrative duties in healthcare | | | | | |

**E. HEALTH ADVOCATE** - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1.  Promotion of the determinants of health in the community at large as it relates to the pediatric population
2.  Demonstrate the knowledge of resources available to those patients in need of community-based care
3.  Understand the role of community based advocacy in regards to patients with special needs
4.  Demonstrate the need to serve as a patient advocate for scarce resources for the patient with special needs

**F. SCHOLAR** - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1.  Demonstrates the ability to resolve previously identified deficits in knowledge and technical skills
2.  Identify possible areas of research in pediatric orthopaedics
3.  Continue to develop teaching models for patient and colleague education

**G. PROFESSIONAL** - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.

1.  Provides efficient, authoritative consultation to the referring source
2.  Serve as a role model to the junior members of the healthcare team in regards to a balance between professional and personal roles
3.  Understand the legislation in regards to treatment of the pediatric patient or patients otherwise unable to understand the scope of treatment needed for care
4.  Demonstrates ability to identify and remediate weakness in their managerial, administrative or education skills in regards to care of the pediatric patient

**DESCRIPTIVE RESPONSES**

*For any items scored 0 or 1, specific comments are critical.*

1. **Strengths:**
Areas for improvement: (If remedial work is recommended - please provide specific suggestions)

Comments:

ORAL EXAMINATION:

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incomplete</td>
</tr>
<tr>
<td>OVERALL COMPETENCE:</td>
<td></td>
</tr>
<tr>
<td>Possesses knowledge, skills,</td>
<td></td>
</tr>
<tr>
<td>and attitudes appropriate to</td>
<td></td>
</tr>
<tr>
<td>level of training. Inspires</td>
<td></td>
</tr>
<tr>
<td>confidence in patients and</td>
<td></td>
</tr>
<tr>
<td>staff.</td>
<td></td>
</tr>
</tbody>
</table>

Were educational objectives / performance discussed with the resident:

At the beginning of the rotation: □ Yes □ No
At the midpoint of the evaluation: □ Yes □ No
At the end of the rotation: □ Yes □ No

Was this evaluation completed by: □ an individual

☐ a committee

Was input obtained from other team members? □ Yes □ No

Evaluator Signature: ___________________________ Date: ___________________________
Resident Signature: ___________________________ Date: ___________________________
Program Director: ___________________________ Date: ___________________________
MUSCULOSKELETAL ONCOLOGY

ROTATION SPECIFIC OBJECTIVES

This document should help you with your objectives throughout your rotation. It is adapted from the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery” put forward by the Royal College of Physicians and Surgeons of Canada. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website (http://rcpsc.medical.org/).

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation. The resident and faculty supervisor are expected to review these objectives at the start, middle and finish of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT
   • Cognitive and Diagnostic
     o Junior/Senior Resident
       ▪ Obtain appropriate history and perform physical examination relating to a tumour and be competent in assessing the following:
         • Size of the tumour and its relationship to Fascia
         • Neurovascular and articular involvement
         • Lymphatic involvement
         • Sites of metastatic potential for primary MSK tumours
         • Organs systems likely to metastasize to the MSK system
         • Tumour characteristics including issues specific to age and gender
       ▪ Describe the different tumour classes and their behaviour:
         • Primary lesions
         • Benign
         • Benign Aggressive
         • Malignant
         • Metastatic lesions
       ▪ Describe the presentation, radiologic characteristics and natural history of the most common primary bone tumour types:
         • Chondroid lesions
         • Osteoid lesions
         • Fibrous lesions
         • Others- unicameral bone cyst, hemangioma, histiocytosis, lipoma, eosinophilic granuloma, giant cell tumour, aneurysmal bone cyst, ewings sarcoma, adamantinoma, chordoma, hemangiopericytoma
- Describe the presentation, radiologic characteristics and natural history of different primary soft tissue tumour types:
  - Fibrous lesions
  - Lipoid lesions
  - Muscle lesions
  - Vascular lesions
  - Nerve lesions
  - Others - myxoma, fibrosarcoma, malignant fibrous histiocytoma, pigmented villonodular synovitis, giant cell tumour of tendon sheath, myositis ossificans, tumoral calcinosis
- For a given MSK tumour:
  - Formulate a differential diagnosis and stage the tumour (according to the Enneking Musculoskeletal Tumour Society (MSTS) System)
  - Describe the appropriate biopsy principles of MSK tumours.
  - Formulate a treatment plan for the different tumour types
  - Describe the multidisciplinary approach to
    - curative treatment
    - palliative care
- Formulate treatment plans for complications in MSK oncology surgery.

*Technical*
  - Junior/Senior Resident
    - To be able to perform with proficiency:
      - Open biopsy of bone and/or soft-tissue lesion
      - Stabilization of metastatic disease
      - Treatment of common benign tumours

2. COMMUNICATOR
- Deliver information to patients and family in a humane manner so that the patient and family understand the options of care and are able to participate in the decision-making process
- Demonstrate an ability to listen effectively and address patients concerns
- Develop strategies for delivering bad news and discussing end of life decisions
- The ability to obtain an appropriate informed consent for patients undergoing interventions.

3. COLLABORATOR
- Describe the roles and responsibilities of the members of a multidisciplinary oncology team
- Develop a working relationship with the appropriate pathologist and radiologist
- Participate in Morbidity and Mortality rounds
- Describe support groups in the community who can assist the oncology patient and their families
- Effectively communicate with others involved in the multidisciplinary care of the oncology patient
- Provide timely and appropriate consultation as requested

4. MANAGER
- Prioritize the investigation and management of the oncology patients
- Understand the balance of allocation of healthcare resources, balancing effectiveness, efficiency and access with optimal patient care
- Describe appropriate waiting times for the oncology patient

5. HEALTH ADVOCATE
- Understand the risk factors associated with the development of a malignancy
- Describe strategies to decrease the societal risk of malignancy
- Communicate to patients their individual risk factors

6. SCHOLAR
- Pose a research question and describe how they would go about answering the question
- Prepare and present an appropriate lecture/presentation including critical appraisal of the literature; describe how this information could be integrated into practice

7. PROFESSIONAL
- Demonstrate ethical practice in the management of the oncology patient including respect for issues regarding gender, ethnicity, religion, age and cultural.
- Demonstrate honesty, integrity, commitment, compassion, respect and altruism
Welcome to your Orthopaedic Oncology Rotation, supervised by Dr. Michelle Ghert, at Michelle.Ghert@jcc.hhsc.ca, and Dr. Ben Deheshi, at bendeheshi@gmail.com. We will work directly with you and teach you the necessary surgical skills for your level of training during this rotation. We can promise you an exciting and educational rotation, and improvement of your surgical skills. In order for you to successfully complete this rotation, you will be evaluated on your knowledge, clinical decision making, interaction with allied health and colleagues, and surgical skills. The following outlines our expectations for successful completion of this rotation and a positive rotation that will bring you one step closer to being a qualified independent orthopaedic surgeon.

**Mid-term evaluations**

Mid-term evaluations will be completed as written and formal feedback using the MacOrtho mid-rotation evaluation forms. If deficiencies are noted, a formal web-eval form will be completed. The purpose of the mid-term evaluation is to identify early any CanMEDS deficiencies so that the resident has the opportunity to improve and attain a satisfactory final evaluation.

**Schedule:**

You should contact Dr. Deheshi’s assistant, Nicole, at bustonn@hhsc.ca or ext. 43962 and Dr. Ghert’s assistant, Michele Pastoric, at Michele.Pastoric@jcc.hhsc.ca or ext. 64089 and ask for our calendar of activities. It is your responsibility to make sure you know our schedules and attend the Tuesday morning MSK radiology rounds, Thursday afternoon multidisciplinary sarcoma rounds, our clinics and ORs when able. If you are unable to attend a clinic or OR (post-call, away, vacation), you need to notify us in advance so that we can make appropriate arrangements.

**Our expectations at the operating suite are:**

- At your level of training, you will be familiar with the pertinent anatomy and surgical approaches for each case.
- You will have reviewed the patient history before every surgical case
- You will have reviewed the imaging before every case
- You will have done pre-op planning and templating of the case in consultation with Dr. Ghert or Dr. Deheshi
- You will be present and confirm that the necessary surgical equipment is in the room before the surgical procedure

Your preparation would then give us the confidence to allow you to perform part or all of the upcoming surgical procedure as appropriate for your knowledge and level of training without compromising patient safety, and with direct supervision.

**Our expectations at the clinical setting are:**

- be punctual and dressed professionally
- obtain pertinent and efficient history and physicals
- present the history & physical
- obtain the appropriate imaging / investigations
- interpret the imaging
- present a clinical assessment, diagnosis, or differential diagnosis
- present a treatment plan
- in surgical cases, discuss the indications, outcomes, and potential risks & complications with the patient
- dictate a thorough consultation note with a copy to referring physician outlining the elements above

Our expectations regarding the patients on the ward are:

- monitor labs and investigations in early post-op patients
- round on each active patient, especially early post-operative patients in the morning before attending clinical or educational activities
- document visits to each patient daily, unless ALC or on rehab ward
- confirm that another resident is covering in your absence while away or on weekends
- appropriate handover to the resident covering for you
- be collegial to nurses, physiotherapists, social workers, admin staff and allied health
- work with the consulting teams (cardiology, medicine, thrombosis) and ask for their help when needed to provide the best care for the patients

Our expectations regarding ER & on-call patients are:

- see patients in ER department efficiently, when feasible
- see consults from the ward the same day / evening, when feasible
- Collect a Bradma / sticker on every consult seen that is reviewed by us. If the case is not reviewed with us, you are taking full responsibility for the care of that patient.
- when Dr. Deheshi is on call (and you are not), the following day, obtain a handover of patients seen by resident on call (discharged or admitted), and collect the bradmas and confirm the case is reviewed with Dr. Deheshi
- make sure that we see all admitted patients and come up with a treatment plan & obtain appropriate investigations
- expedite management of surgical patients - as soon as cleared by medicine / cardiology, the patient can be booked and reviewed with the anesthetist in room 1 or first anesthetist on call.
- do not book any emergency surgical cases without reviewing with Dr. Deheshi or Dr. Ghert first.

Expectations with respect to the necessary knowledge in orthopaedic oncology (mandatory) and arthroplasty (voluntary):

- You will be given a list of multiple-choice oncology questions by Dr. Ghert, with the corresponding imaging. It is your responsibility to review these cases and read around them to obtain the correct answers. You are welcome to discuss any questions with us if you have difficulty obtaining the correct answer.
- At the end of the rotation, you will be given a written exam with a list of questions (selected randomly from the same list), which will be used as part of your evaluation process of the rotation.

- You will also be expected to read around major oncology topics weekly and prepare a summary based on your reading that you can expand upon during and after your rotation based on knowledge gained at rounds, clinical setting, further reading, and discussions.

Summary of topic - to fit within one or two 8x10” cards (or two point-form typed pages maximum) per topic and include an approach to every case as if it is a real patient in the clinical setting:
- Pertinent history, objective findings
- Etiologies, risk factors for the problem
- Necessary investigations and findings specific to problem
- Common radiographic findings specific to problem
- Classification scheme directly related to treatment plan
- Treatment plan / algorithm
- Implant choice & reason
- Equipment, instruments, fluoro to order when booking
- Pre-operative plan
- Surgical details - approach, techniques, key points …
- Post-operative plan - WB status, follow-up …
- Potential complications & how to manage complications

Discussion
- Every week or every two weeks, Dr. Ghert, Dr. Deheshi or Dr. AlShaya will discuss the topics you have reviewed.
- You need to show us some form of notes / written material (an 8x10” card is good enough) to confirm that you have studied the topic
- The discussion does not have to be formal, ie. at the scrub sink, walking to the ward, sitting in the lounge
- The idea is for you to have a structured learning plan and cover all the major topics in oncology
- At the final week, you will be given 2-3 mock-oral style exam cases (any of topics below), which will be used as part of your evaluation process of the rotation.

Oncology

Week 1
- Osteosarcoma

Week 2
- Ewing’s Sarcoma of bone

Week 3
- Chondrosarcoma

Week 4
- Metastatic Bone Disease / Myeloma / Lymphoma

**Week 5**
- Soft tissue sarcomas

**Week 6**
- Benign latent bone tumors

**Week 7**
- Benign active bone tumors

**Week 8**
- Benign aggressive bone tumors

**Week 9**
- Pathologic fracture
  - isolated lesion
  - known metastatic (carcinoma)
  - renal cell Ca
  - myeloma

**Week 10**
- Mimickers - TB, EG, Infection

**Weeks 11-12**
- Case Discussions, Review of missed topics

**Final Week**
- Mock Oral exam - 2-3 cases - Will be used in the evaluation process

**Arthroplasty (Voluntary)**

**Note:** Participation in Arthroplasty reading is *voluntary* and is *not used in the evaluation* process of the Orthopaedic Oncology rotation.

- A list of topics is made available to you, as requested by some senior PGY-5 residents preparing for their exams. Dr. AlShaya or Dr. Deheshi would be happy to review these topics with you. You may also use this topic list as a guide in future arthroplasty-specific rotations.

- The **primary focus of your current rotation is Orthopaedic Oncology**, and seeking arthroplasty knowledge should not interfere with your oncology reading.

**Arthroplasty Topics**

**Week 1**
- Osteoarthritis of the hip
- AVN of the hip

**Week 2**
- Osteoarthritis of the knee
- Varus knee

**Week 3**
- THA in dysplastic hip
Week 4
- Rheumatoid knee
- Valgus knee

Week 5
- Perioprosthetic fracture
  - Hip
  - Knee

Week 6
- Revision THA
  - Acetabular deficiency
  - Femoral deficiency

Week 7
- Revision TKA
  - Failed TKA
  - Patellar maltracking / dislocation
  - Tibial Osteotomy
  - Unicondylar Knee

Week 8
- Infected THA
- Infected TKA

Week 9
- Dislocation THA / Bipolar

Week 10
- Arthroplasty in special conditions
  - Hemophilia
  - Parkinson’s (THA)

Weeks 11-12
- Case Presentations, review of missed topics

I have reviewed & agreed to this rotation plan:

_________________________________________  ________________________________

Please print name  Signature

Yes ☐  No ☐  MUST GIVE REASON: ______________
### CanMEDS Roles / Competencies

<table>
<thead>
<tr>
<th>Name: ________________________      Clinical Fellow</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation Dates: ______________________________</td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
<td></td>
</tr>
<tr>
<td>Attending Staff: ______________________________</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### A. MEDICAL EXPERT: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

1. **Cognitive and Diagnostic**

   **Knowledge - Basic Science and Anatomy**

   1. **Basic science**: knowledge of pathology relating to benign and malignant bone and soft tissue tumours and metastatic disease
   2. **Basic science**: demonstrate understanding of principles of adjuvant therapy of cancer including chemotherapy and radiotherapy
   3. **Anatomy-Surgical**: demonstrate knowledge of surgical approaches; apply knowledge to achieve safe surgical exposure

   **Knowledge-Clinical**

   1. **Medical History**: Be able to perform a concise and complete history of the musculoskeletal oncology patient
   2. **Physical Examination**: Relevant, sufficiently elaborate, and appropriate
   3. **Diagnostic Tests**: be knowledgeable regarding appropriate bloodwork and other investigations for patients with bone tumours
   4. **Medical Imaging Tests/Staging**: appropriate imaging investigation; interpretation of basic x-ray, ultrasound, CT, MRI and radionuclide studies as part of staging of musculoskeletal tumour patients
   5. **Differential Diagnosis**: analysis, synthesis and integration of all relevant data to formulate a rational provisional and differential diagnosis of patient with a bone tumour
   6. **Documentation / Presentation**: well-documented and organized assessments and recommendations in written and/or coherent and concise verbal form
   7. **Pre-operative Planning**: able to correctly utilize clinical and imaging information to plan musculoskeletal tumour resection; able to discuss indications for limb salvage surgery and amputation for bone and soft tissue tumours
<table>
<thead>
<tr>
<th>2.8. Principles of Management:</th>
<th>2.9. Postoperative Care:</th>
<th>2.10 Emergency Management:</th>
<th>2.11 Evidence-based Practice:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledgeable regarding principles of management of musculoskeletal tumors including indications for chemotherapy and radiotherapy</td>
<td>Provide appropriate care to include effective pain management and manage postoperative complications effectively</td>
<td>Able to identify and respond appropriately to urgent medical and surgical problems in musculoskeletal tumor patients and to intervene based on rational interpretation of clinical and ancillary investigation.</td>
<td>Aware of the role of evidence in clinical decision-making. Able to access, retrieve and apply relevant information</td>
</tr>
</tbody>
</table>

**Technical Skills**

1. Surgical procedures: Knowledge of surgical approaches is sound; able to plan and reconstruct biopsies accurately
2. Competence: Able to perform surgical exposure and operation using appropriate tissue-handling techniques

**B. Communicator** - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. Patients / Families: Demonstrates empathy and compassion in dealing with cancer patients and their families, provides truthful and accurate information regarding prognosis
2. Informed Consent: Provides patients and their families with sufficient information regarding the risks and benefits of treatment

Written communication: Able to maintain clear, accurate and appropriate written records. Written orders and progress notes are well organized and legible. Discharge summaries are concise and completed promptly. Clinic/office letters are well organized and provide clear direction to the referring physician

**C. Collaborator** - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1. Recognizes the importance of multidisciplinary care of patients with musculoskeletal neoplasia and effectively interacts with other team members

**D. Manager** - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. Develops an understanding of the numerous resources necessary for management of patients with MSK neoplasia despite health care system constraints
2. Becomes proficient with use of hospital information technology systems
3. Demonstrates efficient time management and prioritization skills relating to patient care, personal learning and outside activities.
### DESCRIBITVE RESPONSES

For any items scored 0 or 1, specific comments are critical

#### Strengths:

- 

- 

- 

#### Areas for improvement: (If remedial work is recommended - please provide specific suggestions)

- 

- 

- 

#### Comments:

- 

- 

### ORAL EXAMINATION:

<table>
<thead>
<tr>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**E. HEALTH ADVOCATE** - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Recognizes the impact of musculoskeletal neoplasia on the patient's personal, social and economical well-being and utilizes appropriate resources to aid the patient's reintegration into the community following treatment

**F. SCHOLAR** - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. Demonstrates effective self-education skills as they pertain to musculoskeletal oncology clinical encounters

**G. PROFESSIONAL** - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.

Demonstrates qualities of professionalism, integrity, honesty and ethical consideration in the delivery of patient care

Displays insight into personal limitations and evaluation.
OVERALL COMPETENCE:
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

<table>
<thead>
<tr>
<th>Incomplete</th>
<th>Meets Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Un satisfactory</td>
</tr>
<tr>
<td>1</td>
<td>Provisional Satisfactory</td>
</tr>
<tr>
<td>2</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Were educational objectives / performance discussed with the resident:
- At the beginning of the rotation: □ Yes □ No
- At the midpoint of the evaluation: □ Yes □ No
- At the end of the rotation: □ Yes □ No

Was this evaluation completed by:
- □ an individual ________________________________
- □ a committee ________________________________

Was input obtained from other team members? □ Yes □ No

Evaluator Signature: ____________________________ Date: ____________________________

Resident Signature: ____________________________ Date: ____________________________
SPORTS MEDICINE

ROTATION SPECIFIC OBJECTIVES

This document should help you with your objectives throughout your rotation. It is adapted from the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery” put forward by the Royal College of Physicians and Surgeons of Canada. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website (http://rcpsc.medical.org/).

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation. The resident and faculty supervisor are expected to review these objectives at the start, middle and finish of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT

At the conclusion of residency, the resident should meet all of the following objectives in spite of variations in rotation durations and resident exposure.

• Cognitive & Diagnostic
  o Junior Resident
    ▪ Understand the anatomy and pathophysiology of acute and chronic Soft Tissue Injury:
      • Rotator Cuff and Elbow Tendinopathy
      • Low back pain
      • Groin injury (Tendinopathy)
      • Isolated Knee Ligaments
      • Meniscal injuries of the knee
      • Patellofemoral Disorders
      • Ankle Sprain
      • Achilles tendon
    ▪ Understand the anatomy, pathophysiology and assessment of:
      • Articular Cartilage Injury
      • Upper and lower extremity joint instability
  
  o Senior Resident
    ▪ Understand the anatomy, pathophysiology, assessment and management of acute and chronic soft tissue injury and instability:
      • Complex/revision knee ligaments
      • Lower extremity malalignment
      • Multidirectional shoulder instability
      • Failed shoulder reconstruction
• Chronic instability of the elbow
• Chronic ankle instability
  ▪ Understand the management of Articular Cartilage Injury including osteochondritis
  ▪ Understand the principles of rehabilitation including return to sports and non-operative management including gender related issues

**Technical**

**o Junior Resident**
  ▪ Performance of appropriate upper and lower extremity physical examinations
  ▪ Performance of diagnostic and therapeutic joint injections
  ▪ Perform diagnostic arthroscopy of the knee and shoulder
  ▪ Repair of simple tendon rupture

**o Senior Resident**
  ▪ Performance of:
    • diagnostic and operative shoulder, knee and ankle arthroscopy
    • ACL reconstruction
    • ankle ligament reconstruction
    • patella realignment
    • lower extremity realignment
    • shoulder reconstruction for instability
    • surgical management of rotator cuff pathology
    • repair of complex tendon rupture

2. **COMMUNICATOR**
  ▪ Ability to communicate to patients in clear and straightforward manner
  ▪ The ability to obtain an appropriate informed consent for patients undergoing interventions.

3. **COLLABORATOR**
  ▪ Be able to interact within the medical team efficiently and to consult effectively.
  ▪ Delegate effectively to other members of the health care team
  ▪ Communication with allied health professionals (physiotherapists, nurses, trainers)
  ▪ Ability to communicate in writing appropriate rehabilitation prescriptions

4. **MANAGER**
  ▪ Cost effective use of investigative tools and therapeutic modalities including complimentary and alternative therapies and procedures
  ▪ Effective time management for patient care and lifestyle balance
5. **HEALTH ADVOCATE**  
- Identify and advise on risk factors for prevention of injury including issues specific for gender, age and return to activity  
- Counsel athletes on the risks and side effects of performance enhancing drugs and substance abuse.

6. **SCHOLAR**  
- Ability to teach and supervise patients, students, colleagues and other healthcare professionals

7. **PROFESSIONAL**  
- Sensitivity and respect for diversity of age, gender, religion, culture and the elite athlete  
- Understand the principles of:  
  - Ethics in sports  
  - Substance abuse  
  - Performance enhancing drugs
Sports Medicine  
Rotation Specific Evaluation Orthopaedic Surgery  
McMaster University

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: ________________________  PGY_____</td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>Rotation Dates: ______________________________</td>
<td>0</td>
</tr>
<tr>
<td>Attending Staff: ______________________________</td>
<td></td>
</tr>
</tbody>
</table>

A. MEDICAL EXPERT: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

1. Cognitive and Diagnostic - Senior Resident

1. Understand the anatomy, pathophysiology, assessment and management of acute and chronic soft tissue injury and instability:
   - Complex/revision knee ligaments
   - Lower extremity malalignment
   - Multidirectional shoulder instability
   - Failed shoulder reconstruction
   - Chronic instability of the elbow
   - Chronic ankle instability

2. Understand the management of Articular Cartilage Injury including osteochondritis

3. Understand the principles of rehabilitation including return to sports and non-operative management including gender related issues

A. MEDICAL EXPERT: At the conclusion of residency, the resident should meet all of the following objectives in spite of variations in rotation durations and resident exposure

2. Technical - Senior Resident - Performance of:

1. Diagnostic and operative shoulder, knee and ankle arthroscopy

2. ACL reconstruction

3. Ankle ligament reconstruction

4. Patella realignment

5. Lower extremity realignment

6. Shoulder reconstruction for instability

7. Surgical management of rotator cuff pathology

8. Repair of complex tendon rupture
<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Marginal Satisfactory Progress Fully</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B. COMMUNICATOR</strong> - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Ability to communicate to patients in clear and straightforward manner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The ability to obtain an appropriate informed consent for patients undergoing interventions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C. COLLABORATOR</strong> - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Be able to interact with the medical team efficiently and to consult effectively</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Delegate effectively to other members of the healthcare team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Communication with allied health professionals (physiotherapists, nurses, trainers)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Ability to communicate in writing appropriate rehabilitation prescriptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D. MANAGER</strong> - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Cost effective use of investigative tools and therapeutic modalities including complimentary and alternative therapies and procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Effective time management for patient care and lifestyle balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E. HEALTH ADVOCATE</strong> - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Identify and advise on risk factors for prevention of injury including issues specific for gender, age and return to activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Counsel athletes on the risks and side effects of performance enhancing drugs and substance abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>F. SCHOLAR</strong> - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Ability to teach and supervise patients, students, colleagues and other healthcare professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>G. PROFESSIONAL</strong> - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Sensitivity and respect for diversity of age, gender, religion, culture and the elite athlete</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Understand the principles of:

- Ethics in sports
- Substance abuse
- Performance enhancing drugs

DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical.

1 Strengths:
   -
   -

2 Areas for improvement: (If remedial work is recommended - please provide specific suggestions)
   -
   -

3 Comments:
   -
   -

ORAL EXAMINATION:

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Meets Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incomplete 0</td>
</tr>
<tr>
<td></td>
<td>Unsatisfactory 1</td>
</tr>
<tr>
<td></td>
<td>Provisional satisfactory 2</td>
</tr>
<tr>
<td></td>
<td>Satisfactory 3</td>
</tr>
</tbody>
</table>

OVERALL COMPETENCE:
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Were educational objectives / performance discussed with the resident:

   - At the beginning of the rotation: □ Yes □ No
   - At the midpoint of the evaluation: □ Yes □ No
   - At the end of the rotation: □ Yes □ No

Was this evaluation completed by:

□ an individual ____________________________
□ a committee _____________________________

Was input obtained from other team members? □ Yes □ No
FOOT AND ANKLE

ROTATION SPECIFIC OBJECTIVES

This document should help you with your objectives throughout your rotation. It is adapted from the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery” put forward by the Royal College of Physicians and Surgeons of Canada. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website (http://rcpsc.medical.org/).

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation. The resident and faculty supervisor are expected to review these objectives at the start, middle and finish of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT
   • Cognitive & Diagnostic
     o Junior Resident
       ▪ Understanding of normal and abnormal gait.
       ▪ Understanding and assessment of deformities of forefoot, midfoot, hindfoot and ankle
       ▪ Understanding and recognition of feet at high risk for ulceration, and the presence of ulcers
       ▪ Understand appropriate use of diagnostic imaging and tests for assessment of foot and ankle pain and deformity
       ▪ Understand non-operative management of common foot and ankle pathology
         Understand the assessment and diagnosis of soft tissue and bony injuries to the foot and ankle

     o Senior Resident
       ▪ Understand, assess, provide a differential diagnosis and management of common foot and ankle pathologies
       ▪ Understand and prescribe appropriate rehabilitation and non-operative management of common foot and ankle pathologies
• Technical
  o Junior Resident
    ▪ Performance of local anesthetic blocks for foot and ankle surgery
    ▪ Describe common surgical approaches for hindfoot, midfoot, forefoot and ankle.
    ▪ Perform diagnostic and therapeutic injections of foot and ankle joints
    ▪ Initial management of diabetic/Charcot foot
    ▪ Initial management of ischemic/gangrenous foot
    ▪ Performance of:
      • Simple forefoot reconstruction
      • Simple foot and ankle fractures
  
o Senior Resident
    ▪ The understanding, assessment and treatment of arthritis involving ankle, subtalar, midfoot and forefoot joints
    ▪ The understanding, assessment and treatment of:
      • Foot and ankle tendinopathies
      • Complex foot and ankle fractures
      • Complex forefoot reconstruction
      • Diagnostic and operative ankle arthroscopy
      • Complications of foot and ankle surgery
      • Definitive management of ischemic/gangrenous foot
      • Definitive management of diabetic/Charcot foot

2. COMMUNICATOR
  ▪ The ability to manage and to communicate with non-compliant and difficult patients.
  ▪ To effectively and compassionately convey bad news to patients.
  ▪ The ability to obtain an appropriate informed consent for patients undergoing interventions.

3. COLLABORATOR
  ▪ Consult effectively with other physicians and health care professionals.
  ▪ Contribute effectively to other interdisciplinary team activities.
  ▪ Share knowledge effectively to formulate a health care plan.

4. MANAGER
  ▪ Coordinating the use of medical devices such as, orthotics and braces, in a fiscally responsible manner.
5. **HEALTH ADVOCATE**
   - Identify risk factors that can lead to nonunion, foot ulceration, amputation, and Charcot foot, and advise patients on lifestyle modifications to improve outcomes.
   - Outline community resources available to patients/families dealing with orthopedic foot/ankle disease and injury:
     - Social work
     - Physiotherapy
     - Occupational therapy
     - Dietary/nutritional services
     - Prosthetic support services
     - Chiropodists, podiatrists
     - Pain management services

6. **SCHOLAR**
   - To formulate a clinically relevant learning question, conduct a literature search, and present findings.

7. **PROFESSIONAL**
   - Deliver the highest quality care with integrity, honesty and compassion respecting confidentiality
   - Understand that professionalism requires ongoing Continuing Professional Development
   - Sympathize with the needs of the patient even when they conflict with medical advice
   - Respond to conflict constructively and with compassion
## CanMEDS Roles / Competencies

<table>
<thead>
<tr>
<th>To be completed by __________________________</th>
<th>On this form, you will be evaluating __________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>For dates: ___________________________ to __________________________</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### A. MEDICAL EXPERT: As Medical Experts, Orthopedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

#### 1. Cognitive and Diagnostic - Junior Resident

1. Understanding of normal and abnormal gait
2. Understanding and assessment of deformities of the forefoot, midfoot, hindfoot and ankle
3. Understanding and recognition of feet at high risk for ulceration, and the presence of ulcers
4. Understand appropriate use of diagnostic imaging and tests for assessment of foot and ankle pain and deformity
5. Understand non-operative management of common foot and ankle pathology
6. Understand the assessment and diagnosis of soft tissue and bony injuries to the foot and ankle

#### 2. Technical - Demonstrate proficiency in:

1. Performance of local anesthetic blocks for foot and ankle surgery
2. Describe common surgical approaches for hindfoot, midfoot, forefoot and ankle
3. Perform diagnostic and therapeutic injections of foot and ankle joints
4. Initial management of diabetic/Charcot foot
5. Initial management of ischemic/gangrenous foot
6. Performance of:
   - Simple forefoot reconstruction
   - Simple foot and ankle fractures

### B. COMMUNICATOR - As Communicators, Orthopedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. The ability to manage and communicate with non-compliant and difficult patients
2. To effectively and compassionately convey bad news to patients
3. The ability to obtain an appropriate informed consent for patients undergoing interventions
### CanMEDS Roles / Competencies

<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

#### C. COLLABORATOR - As Collaborators, Orthopedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1. Consult effectively with other physicians and health care professionals
2. Contribute effectively to other interdisciplinary team activities
3. Share knowledge effectively to formulate a health care plan

#### D. MANAGER - As Managers, Orthopedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. Coordinating the use of medical devices such as, orthotics and braces, in a fiscally responsible manner

#### E. HEALTH ADVOCATE - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Identify risk factors that can lead to nonunion, foot ulceration, amputation, and Charcot foot, and advise patients on lifestyle modifications to improve outcomes
2. Outline community resources available to patients/families dealing with orthopedic foot/ankle disease and injury:
   - Social work
   - Physiotherapy
   - Occupational Therapy
   - Dietary/nutritional services
   - Prosthetic support services
   - Chiropodists, podiatrists
   - Pain management services

#### F. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. To formulate a clinically relevant learning question, conduct a literature search, and present findings

#### G. PROFESSIONAL - As Professionals, Orthopedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

1. Deliver the highest quality care with integrity, honesty and compassion respecting confidentiality
2. Understand that professionalism requires ongoing Continuing Professional Development
3. Sympathize with the needs of the patient even when they conflict with medical advise
4. Respond to conflict constructively and with compassion
DESCRIPTIVE RESPONSES

1. Strengths:

2

3. Comments:

<table>
<thead>
<tr>
<th>Incomplete</th>
<th>Meets Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td></td>
<td>Provisional</td>
</tr>
<tr>
<td></td>
<td>Satisfactory</td>
</tr>
</tbody>
</table>

OVERALL COMPETENCE:
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

ORAL EXAMINATION:

Were educational objectives / performance discussed with the resident:

- At the beginning of the rotation: □ Yes □ No
- At the midpoint of the evaluation: □ Yes □ No
- At the end of the rotation: □ Yes □ No

Was this evaluation completed by: □ an individual □ a committee

Was input obtained from other team members? □ Yes □ No
Rotation Specific Objectives

Upper Limb

The following document is intended to guide you in some of the specific knowledge and skills you should develop on this rotation. This document is intended to augment but not replace the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery”. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website.

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT
   • Cognitive and Diagnostic
   Upon completion of the Upper Limb Rotation, the resident shall have knowledge, comprehension, problem-solving abilities and evaluation skills for the following:

   o Junior Resident
     ▪ Common upper limb fractures and dislocations.
     ▪ Degenerative, overuse and traumatic tendon injuries
     ▪ Principles and indications for joint reconstruction of the upper limb
     ▪ Peripheral nerve injuries, entrapments, and chronic regional pain syndromes
     ▪ Infections including those specific to the hand
     ▪ Compartment syndromes
     ▪ Common vascular, inflammatory and congenital conditions
     ▪ Ganglions and neoplasms
     ▪ Splinting and rehabilitation
     ▪ Principles and indications for arthroscopy in the shoulder

   o Senior Resident
     ▪ Complex upper limb fractures and dislocations.
     ▪ Complex periarticular fractures and fracture-dislocations
     ▪ DRUJ and carpal instabilities
     ▪ Brachial plexus and tendon transfers
     ▪ Principles and indications for arthroscopy in the elbow and wrist
     ▪ Joint contractures including Dupuytren’s
     ▪ Principles of amputations and arthrodesis
     ▪ Unique principles of treatment of skeletal metastases
• Technical
  o Junior Resident
    ▶ Diagnostic and therapeutic injections to the upper limb
    ▶ Closed and open reduction techniques for common upper limb fractures and dislocations
    ▶ Common surgical exposures to the upper limb
    ▶ Surgical management of:
      • Compartment syndromes
      • Nerve entrapment syndromes
      • Ganglions
      • Infections
      • Diagnostic arthroscopy of the shoulder
  
  o Senior Resident
    ▶ Management of intra-articular and periprosthetic fractures of the upper limb
    ▶ Management of scaphoid non-union
    ▶ Corrective osteotomy of the distal radius
    ▶ Tendon rupture repair and reconstruction
      • Rotator cuff and Distal biceps
      • Extensor Pollicis Longus
    ▶ Joint Instabilities
    ▶ Open/Arthroscopic Shoulder Stabilization
      • AC Instability – acute and chronic
    ▶ Stabilization techniques for elbow or carpal dissociations
    ▶ Arthroplasty
      • Primary shoulder hemiarthroplasty
      • Radial head
      • Interpositional arthroplasty – CMC, DRUJ
      • Removal of an infected prosthesis
    ▶ Arthroscopy of the upper limb
    ▶ Loose body removal
    ▶ Arthrodoses:
      • Shoulder
      • Wrist
      • Digits
    ▶ Treatment of joint contractures:
      • Adhesive capsulitis
      • Elbow
      • Dupuytren’s disease
    ▶ Amputations – traumatic and elective

2. COMMUNICATOR
  o Junior Resident
    ▶ The resident should be able to obtain an informed consent for common upper limb procedures.
2.1.2 Demonstrate skills in working with other providers and patients to overcome communication challenges including anger, confusion, sensory or cognitive impairment, socio-economic or ethno-cultural differences.

- The ability to obtain an appropriate informed consent for patients undergoing interventions.

**o Senior Resident**
- Understand the consent requirements for communication with third party agents
  - Be capable of effective oral and written communication with third party agents such as Workers’ Compensation Insurance and disability insurers

3. **COLLABORATOR**

**o Junior Resident**
- Define the role and expertise of the health care professionals involved in patient care.
- Demonstrate the ability to accept, consider and respect the opinions of all other team members, while contributing specialty-specific expertise.
- Understand and demonstrate the importance of communication among health professionals involved in the care of an individual patient, including physician colleagues, and allied health professionals.

**o Senior Resident**
- Develop skills necessary for successful coordination and implementation of a treatment plan
- Advocate and assist in conflict resolution with third party agents

4. **MANAGER**

**o Junior Resident**
- Utilize time and resources effectively in order to balance patient care, outside activities and personal lifestyle considerations.
- Establish an understanding of health care resource allocation and educational resources.
- Effectively utilize information technology to optimize patient care and for continued self-directed learning.

**o Senior Resident**
- Recognize the financial impact of implementing new technologies into clinical practice
- Prioritize emergent and elective care based on evidence for the benefit of individual patients, populations served and resource availability
- Demonstrate leadership when allocating finite health care resources
5. **HEALTH ADVOCATE**
   o Junior Resident
     - Identify the determinants and risk factors for upper limb injury and disease such as age, gender, occupation, education, general fitness and substance abuse
     - Know and apply preventive measures to minimize deterioration in overall general health and to optimize results of upper limb surgery.
     - Know and apply measures to minimize complications of upper limb surgery.
   o Senior Resident
     - Be able to discuss strategies of health promotion that may diminish upper limb injury and disease prevalence
       - Farm / workplace safety, ergonomics
       - Insufficiency / geriatric fractures
     - Advocate for timely access to care

6. **SCHOLAR**
   o Junior / Senior Resident
     - Demonstrate attributes of self-directed learning by
       - Create a personal learning project
       - Utilize critical appraisal to identify possible solutions
     - Participate in the education of patients, fellow residents, housestaff, and allied health professionals.
     - Pose a research question related to a common upper limb disorder, conduct an appropriate literature search, and propose a research methodology that attempts to answer the question.

7. **PROFESSIONAL**
   o Junior / Senior Resident
     - Deliver the highest quality upper limb medical and surgical care with integrity, honesty and compassion.
     - Exhibit appropriate personal and interpersonal professional behaviour.
     - Practice in an ethically responsible manner that respects medical, legal and professional obligations.
     - Recognize, analyze and attempt to resolve ethical issues such as consent, conflict of interest, resource allocation, and practice ethics in medical research, etc.
### CanMEDS Roles / Competencies

To be completed by __________________________

On this form, you will be evaluating ______________________

For dates: ____________ to ____________

<table>
<thead>
<tr>
<th>Expectations</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**A. MEDICAL EXPERT:** As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

#### 1. Cognitive and Diagnostic - Junior Resident

1. Common upper limb fractures and dislocations
2. Degenerative, overuse and traumatic tendon injuries
3. Principles and indications for joint reconstruction of the upper limb
4. Peripheral nerve injuries, entrapments, and chronic regional pain syndromes
5. Infections including those specific to the hand
6. Compartment syndromes
7. Common vascular, inflammatory and congenital conditions
8. Ganglions and neoplasms
9. Splinting and rehabilitation
10. Principles and indications for arthroscopy in the shoulder

#### 2. Technical - Junior Resident

1. Diagnostic and therapeutic injections to the upper limb
2. Closed and open reduction techniques for common upper limb fractures and dislocations
3. Common surgical exposures to the upper limb
4. Surgical management of:
   - Compartment syndromes
   - Nerve entrapment syndromes
   - Ganglions
   - Infections
   - Diagnostic arthroscopy of the shoulder
<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

**B. COMMUNICATOR** - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. The resident should be able to obtain informed consent for common upper limb procedures

2. Demonstrate skills in working with other providers and patients to overcome communication challenges including anger, confusion, sensory or cognitive impairment, socio-economic or ethno-cultural differences

3. The ability to obtain appropriate informed consent for patients undergoing interventions

**C. COLLABORATOR** - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1. Define the role and expertise of the health care professionals involved in patient care

2. Demonstrate the ability to accept, consider and respect the opinions of all other team members, while contributing specialty-specific expertise

3. Understand and demonstrate the importance of communication among health professionals involved in the care of an individual patient, including physician colleagues, and allied health professionals

**D. MANAGER** - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. Utilize time and resources effectively in order to balance patient care, outside activities and personal lifestyle considerations

2. Establish an understanding of health care resource allocation and educational resources

3. Effectively utilize information technology to optimize patient care and for continued self-directed learning

**E. HEALTH ADVOCATE** - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Identify the determinants and risk factors for upper limb injury and disease such as age, gender, occupation, education, general fitness and substance abuse

2. Know and apply preventative measures to minimize deterioration in overall general health and to optimize results of upper limb surgery

3. Know and apply measures to minimize complications of upper limb surgery
### CanMEDS Roles / Competencies

#### Expectations

<table>
<thead>
<tr>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Marginal</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfactory Progress</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fully</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

#### F. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. Demonstrate attributes of self-directed learning by:
   - [ ] Create a personal learning project
   - [ ] Utilize critical appraisal to identify possible solutions

2. Participate in the education of patients, fellow residents, house staff, and allied health professionals

3. Pose a research question related to a common upper limb disorder, conduct an appropriate literature search, and propose a research methodology that attempts to answer the question

#### G. PROFESSIONAL - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

1. Deliver the highest quality upper limb medical and surgical care with integrity, honesty and compassion

2. Exhibit appropriate personal and interpersonal professional behaviour

3. Practice in an ethically responsible manner that respects medical, legal and professional obligations

4. Recognize, analyze and attempt to resolve ethical issues such as consent, conflict of interest, resource allocation, and practice ethics in medical research, etc.

### CanMEDS Roles / Competencies

#### Expectations

<table>
<thead>
<tr>
<th>Incomplete</th>
<th>Meets Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td></td>
<td>Provisional satisfactory</td>
</tr>
<tr>
<td></td>
<td>Satisfactory</td>
</tr>
</tbody>
</table>

#### OVERALL COMPETENCE:

Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Descriptive Responses:

Strengths:

Comments:

**Were educational objectives / performance discussed with the resident:**

- At the beginning of the rotation: [ ] Yes [ ] No
- At the midpoint of the evaluation: [ ] Yes [ ] No
- At the end of the rotation: [ ] Yes [ ] No

**Was this evaluation completed by:** [ ] an individual [ ] a committee

**Was input obtained from other team members?** [ ] Yes [ ] No
Upper Limb – Senior Resident  
Rotation Specific Evaluation Orthopaedic Surgery  
McMaster University

CanMEDS Roles / Competencies

<table>
<thead>
<tr>
<th>To be completed by __________________________</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>On this form, you will be evaluating _________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For dates: ______________ to ______________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MEDICAL EXPERT:** As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

**Technical - Senior Resident - Demonstrate proficiency in:**

1. Complex upper limb fractures and dislocations
2. Complex periartricular fractures and fracture-dislocations
3. DRUJ and carpal instabilities
4. Brachial plexus and tendon transfers
5. Principles and indications for arthroscopy in the elbow and wrist
6. Joint contractures including Dupuytren’s
7. Principles of amputations and arthrodesis
8. Unique principles of treatment of skeletal metastases
9. Management of intra-articular and periprosthetic fractures of the upper limb
10. Management of scaphoid non-union
11. Corrective osteotomy of the distal radius
12. Tendon rupture repair and reconstruction
   - Rotator cuff and distal biceps
   - Extensor pollicis longus
13. Joint instabilities
14. Open/arthroscopic shoulder stabilization
   - AC instability - acute and chronic
15. Stabilization techniques for elbow or carpal dissociations
16. Arthroplasty
   - Primary shoulder hemiarthroplasty
   - Radial head
   - Interpositional arthroplasty - CMC, DRUJ
   - Removal of an infected prosthesis
17. Arthroscopy of the upper limb
18. Loose body removal
19. Arthrodesis:
   - Shoulder
   - Wrist
   - Digits
20. Treatment of joint contractures:
   - Adhesive capsulitis
   - Elbow
   - Dupuytren’s contracture
21. Amputations - traumatic and elective
<table>
<thead>
<tr>
<th>CanMeds Roles / Competencies</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the consent requirements for communication with third party agents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Be capable of effective oral and written communication with third party agents such as Workers’ Compensation Insurance and disability insurers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop skills necessary for successful coordination and implementation of a treatment plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate and assist in conflict resolution with third party agents</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**D. Manager - As Managers**, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize the financial impact of implementing new technologies into clinical practice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prioritize emergent and elective care based on evidence for the benefit of individual patients, populations served and resource availability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate leadership when allocating finite health care resources</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**E. Health Advocate - As Health Advocates**, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Be able to discuss strategies of health promotion that may diminish upper limb injury and disease prevalence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm /workplace safety, ergonomics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insufficiency / geriatric fractures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate for timely access to care</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**F. Scholar - As Scholars**, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate attributes of self-directed learning by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create a personal learning project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilize critical appraisal to identify possible solutions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participate in the education of patients, fellow residents, house staff, and allied health professionals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pose a research question related to a common upper limb disorder, conduct an appropriate literature search, and propose a research methodology that attempts to answer the question</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**G. Professional - As Professionals**, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.

<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deliver the highest quality upper limb medical and surgical care with integrity, honesty and compassion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhibit appropriate personal and interpersonal professional behaviour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice in an ethically responsible manner that respects medical, legal and professional obligations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize, analyze and attempt to resolve ethical issues such as consent, conflict of interest, resource allocation, and practice ethics in medical research, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical.

1 Strengths:

2 Areas for improvement: (If remedial work is recommended - please provide specific suggestions)

3 Comments:

- ORAL EXAMINATION:

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incomplete</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OVERALL COMPETENCE:
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Were educational objectives / performance discussed with the resident:

At the beginning of the rotation: □ Yes □ No
At the midpoint of the evaluation: □ Yes □ No
At the end of the rotation: □ Yes □ No

Was this evaluation completed by: □ an individual ____________________________

□ a committee ____________________________

Was input obtained from other team members? □ Yes □ No

_______________________________________________
COMMUNITY ORTHOPAEDICS

ROTATION SPECIFIC OBJECTIVES

This document should help you with your objectives throughout your rotation. It is adapted from the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery” put forward by the Royal College of Physicians and Surgeons of Canada. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website (http://rcpsc.medical.org/).

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation. The resident and faculty supervisor are expected to review these objectives at the start, middle and finish of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT
   • Cognitive & Diagnostic
     o Junior/Senior Resident
     Upon completion of the community rotation the resident will be able to;
     ▪ Understand the spectrum and limitations of practice in a community setting based on resources and geography
     ▪ Demonstrate appropriate core knowledge based on their level of training
     ▪ Appreciate the structure of health care in a community setting including:
     ▪ Access to tertiary care, stabilization and investigation of patients for transfer
     ▪ Function effectively within a multidisciplinary setting
     ▪ Resource allocation and health care infrastructure
     ▪ Practice Management – Group and Solo
     ▪ Life Balance

   • Technical Knowledge
     o Junior/Senior Resident
     ▪ Perform adequately many community based procedures:
     ▪ Common upper extremity fractures
     ▪ Hip fractures
     ▪ uncomplicated arthroplasty hip/ knee
     ▪ Ankle fractures
     ▪ Arthroscopy
     ▪ Uncomplicated pediatric fractures
2. COMMUNICATOR
   ▪ The resident will be expected to establish and maintain treatment based relationships with both patients and their families.
   ▪ The resident will be able to:
     • Elicit a focused history
     • listen effectively
     • deliver information to patients/extended family and colleagues
     • demonstrate proficiency in documenting progress notes, orders, consultation letters etc.

3. COLLABORATOR
   ▪ The resident will be required to demonstrate an ability to interact with all other healthcare professionals including family, allied health professionals and other physicians.
   ▪ Respect the roles of other professionals.

4. MANAGER
   ▪ The resident will utilize resources to balance patient care and to allocate finite resources wisely.
   ▪ The resident will demonstrate the ability to balance personal and professional activities and use their time to optimize patient care and Continuing Professional Development.
   ▪ Understand office administration, practice management and billing.
   ▪ The community rotation provides an excellent arena to teach and discuss practice management along with other managerial skills. Topics for review in this arena include:
     • Negotiation skills
     • Committee responsibilities
     • How to get and give references
     • Practice efficiency; Hospital, house and office
     • Managing length of stay and waitlist.

5. SCHOLAR
   ▪ Demonstrate the ability to assess, appraise, acquire, and contribute to lifelong learning.
   ▪ Recognize the need for a broad spectrum of knowledge when practicing in the community; as well as a strategy for Continuing Professional Development in order to remain current.
   ▪ Understanding of the MOCOMP requirements of the Royal College of Physicians and Surgeons.
6. ADVOCATE
   - The community rotation represents an ideal setting to discuss with the resident the role of a community group in developing an expansion plan to meet the needs of the growing community.
   - Advocating for access to tertiary care

7. HEALTH PROFESSIONAL
   - The resident will be expected to adhere to a high standard of honesty, integrity, commitment, compassion, effectiveness, competence and altruism.
   - Self-regulation in these areas is imperative. The resident will be expected to be accountable for all behaviors and recognize the boundaries between professional and personal realms.
## A. MEDICAL EXPERT

As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

### 1. Cognitive and Diagnostic

1. Understand the spectrum and limitations of practice in a community setting based on resources and geography

2. Demonstrate appropriate core knowledge based on their level of training

3. Appreciate the structure of health care in a community setting including:
   - Access to tertiary care, stabilization and investigation of patients for transfer
   - Function effectively within a multidisciplinary setting
   - Resource allocation and health care infrastructure
   - Practice Management - Group and Solo
   - Life Balance

### 2. Technical Knowledge

1. Perform adequately many community based procedures:
   - Common upper extremity fractures
   - Hip Fractures
   - Uncomplicated arthroplasty hip / knee
   - Ankle fractures
   - Arthroscopy
   - Uncomplicated pediatric fractures

## B. COMMUNICATOR

As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. The resident will be expected to establish and maintain treatment based relationships with both patients and their families

2. The resident will be able to:
   - Elicit a focused history
   - Listen effectively
CanMEDS Roles / Competencies | Expectsions |
--- | --- |
| Meets Expectations | | | | | | | |
| Marginal | Satisfactory | Progress | Fully | Exceeds | N/A |

- Deliver information to patients/extended family and colleagues
- Demonstrate proficiency in documenting progress notes, orders, consultation letters, etc

### C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1. The resident will be required to demonstrate an ability to interact with all other healthcare professionals including family, allied health professionals and other physicians

2. Respect the roles of other professionals

### D. MANAGER - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. The resident will utilize resources to balance patient care and to allocate finite resources wisely

2. The resident will demonstrate the ability to balance personal and professional activities and use their time to optimize patient care and Continuing Professional Development

3. Understand office administration, practice management and billing

4. The community rotation provides an excellent arena to teach and discuss practice management along with other managerial skills. Topics for review in this arena include:
   - Negotiation skills
   - Committee responsibility
   - How to get and give references
   - Practice efficiency; hospital, house and office
   - Managing length of stay and waitlist

### E. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. Demonstrate the ability to assess, appraise, acquire and contribute to lifelong learning

2. Recognize the need for a broad spectrum of knowledge when practicing in the community; as well as a strategy for Continuing Professional Development in order to remain current

3. Understanding of the MOCOMP requirements of the Royal College of Physicians and Surgeons

### F. HEALTH ADVOCATE - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. The community rotation represents an ideal setting to discuss with the resident the role of a community group in developing an expansion plan to meet the needs of the growing community

2. Advocating for access to tertiary care
G. PROFESSIONAL - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.

1 The resident will be expected to adhere to a high standard of honesty, integrity, commitment, compassion, effectiveness, competence and altruism

2 Self-regulation in these areas is imperative. The resident will be expected to be accountable for all behaviours and recognize the boundaries between professional and personal realms

DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical.

1 **Strengths:**
   -

2 **Areas for improvement:** (If remedial work is recommended - please provide specific suggestions)
   -

3 **Comments:**
   -

ORAL EXAMINATION:

Were educational objectives / performance discussed with the resident:

- At the beginning of the rotation: □ Yes □ No
- At the midpoint of the evaluation: □ Yes □ No
- At the end of the rotation: □ Yes □ No

Was this evaluation completed by: □ an individual
                                    □ a committee

Was input obtained from other team members? □ Yes □ No

OVERALL COMPETENCE:

Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.
In keeping with the specific standards of accreditation (2009) this rotation assumes administrative support and university affiliation.

Medical Experts

As Medical Experts, Vascular Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

**Key and Enabling Competencies: Vascular Surgeons are able to...**

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care

   1.1. Perform a consultation, including the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional. The consultation will advise on diagnosis and directing treatment in patients with Common vascular conditions

2. Establish and maintain clinical knowledge, skills and attitudes appropriate to Vascular Surgery practice

   2.1.1. Differentiate the patterns of disease, natural history, and responses to treatment of vascular disease in men and women and in different racial and cultural groups

   2.1.2. Describe the operative and non-operative treatment options available to patients with vascular disease, including endovascular therapy

   2.1.3. Provide a strategy for risk stratification and risk factor modification in patients with vascular disease

   2.1.4. Explain the effect of different coagulation disorders on the vascular system

   2.1.5. Summarize the noninvasive and invasive diagnostic modalities available, including indications and complications

   2.1.6. Describe the behaviours of biological and synthetic grafts and their respective complications

   2.1.7. Interpret appropriate biostatistics and epidemiology measures as they relate to Vascular Surgery
3. Perform a complete and appropriate assessment of a Vascular Surgery patient

- Elicit a history that is relevant, clear, concise and accurate to context and preferences for the purposes of prevention and health promotion, diagnosis and/or management
- Perform a focused physical examination that is relevant and accurate for the purposes of prevention and health promotion, diagnosis and/or management
- Select medically appropriate investigative methods in a resource-effective and ethical manner
- Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

- Use preventive and therapeutic interventions effectively

- Implement a management plan in collaboration with a patient and their family
- Demonstrate appropriate and timely application of preventive and therapeutic interventions relevant to the practice of Vascular Surgery including risk factor modification

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic

- Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to Vascular Surgery, including invasive imaging modalities
- Application and interpretation of venography, angiography and invasive imaging modalities
- Application and interpretation of noninvasive imaging modalities
- Apply knowledge and skills in the application of endovascular interventions, and other treatment modalities

II COMMUNICATOR

**Definition:**
As Communicators, Vascular Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

**Key and Enabling Competencies: Vascular Surgeons are able to...**

Develop rapport, trust, and ethical therapeutic relationships with patients and families

Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals

Convey relevant information and explanations accurately to patients and families, colleagues and other professionals

Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care
Convey effective oral and written information about a medical encounter

- Maintain clear, concise, accurate, and appropriate records (e.g., written or electronic) of clinical encounters and plans
- Present verbal reports of clinical encounters and plans

III COLLABORATOR

As Collaborators, Vascular Surgeons effectively work within a health care team to achieve optimal patient care.
*Key and Enabling Competencies: Vascular Surgeons are able to...*

Participate effectively and appropriately in an interprofessional Vascular Surgery team

- Recognize and respect the diversity of roles, responsibilities and competences of other professionals in relation to their own
- Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients)
- Respect team ethics, including confidentiality, resource allocation and professionalism

2. Work with other health professionals effectively to prevent, negotiate, and resolve interprofessional conflict
   - Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
   - Reflect on interprofessional team function

IV MANAGER

As Managers, Vascular Surgeons are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.
*Key and Enabling Competencies: Vascular Surgeons are able to...*

1. Participate in activities that contribute to the effectiveness of their health care organizations and systems

- Describe the structure and function of the health care system as it relates to Vascular Surgery, including the roles of physicians
- Describe principles of health care financing, including physician remuneration, budgeting and organizational funding

2. Manage their practice and career effectively
• Set priorities and manage time to balance patient care, practice requirements, outside activities and personal life
• Employ information technology appropriately for patient care and life long learning

3. **Allocate finite health care resources appropriately**
   - Recognize the importance of just allocation of health care resources, balancing effectiveness, efficiency and access with optimal patient care
   - Apply evidence and management processes for cost-appropriate care

**V SCHOLAR**

As *Scholars*, Vascular Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

**Maintain and enhance professional activities through ongoing learning**

Critically evaluate medical information and its sources, and apply this appropriately to practice decisions

**Facilitate the learning of patients, families, students, residents, other health professionals, the public and others, as appropriate**

- Select effective teaching strategies and content to facilitate others’ learning
- Demonstrate an effective lecture or presentation
- Assess and reflect on a teaching encounter

**VI ADVOCATE**

As *Health Advocates*, Vascular Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations

**Key and Enabling Competencies: Vascular Surgeons are able to...**

1. **Respond to individual patient health needs and issues as part of patient care**
   - Identify the health needs of an individual patient
   - Identify opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care
   - Manage the appropriate risk factors as they affect the overall health of vascular patients
   - Advocate for the timely delivery of care to the vascular patient
   - Describe the principles of ethics with respect to teaching

2. **Identify the determinants of health for the populations that they serve**
   - Identify the determinants of health of the populations, including barriers to access to care and resources
• Advocate for the management of risk factors in vascular patients with a multi-system disease.
• Identify vulnerable or marginalized populations within those served and respond appropriately

Promote the health of individual patients, communities, and populations

• Describe the role of the medical profession in advocating collectively for health and patient safety

VI HEALTH PROFESSIONAL

As Professionals, Vascular Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

Demonstrate a commitment to their patients, profession, and society through ethical practice

• Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism
• Recognize and appropriately respond to ethical issues encountered in practice
• Manage conflicts of interest
• Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law
• Maintain appropriate relations with patients

Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation

• Demonstrate appropriate professional behaviours in all settings including the operating room, clinics, ward and learning environment

Demonstrate a commitment to physician health and sustainable practice

• Balance personal and professional priorities to ensure personal health and a sustainable practice
• Strive to heighten personal and professional awareness and insight
Vascular Surgery
Rotation Specific Evaluation – Off Service PGY2
McMaster University

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>Name: ________________________ PGY____</td>
<td>0</td>
</tr>
<tr>
<td>Rotation Dates: ______________________________</td>
<td></td>
</tr>
<tr>
<td>Attending Staff: ______________________________</td>
<td></td>
</tr>
</tbody>
</table>

A. MEDICAL EXPERT: Perform a consultation, including the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional. The consultation will advise on diagnosis and directing treatment in patients with the following conditions:

1. Cognitive and Diagnostic -

   Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to the practice of Vascular Surgery, including the anatomy, physiology, and pathophysiology of the circulatory system in health and disease, including arterial wall cell biology, hemodynamics, and ischemia-related organ dysfunction:

   - Differentiate the patterns of disease, natural history, and responses to treatment of vascular disease in men and women and in different racial and cultural groups
   - Describe the operative and non-operative treatment options available to patients with vascular disease, including endovascular therapy
   - Provide a strategy for risk stratification and risk factor modification in patients with vascular disease
   - Explain the effect of different coagulation disorders on the vascular system
   - Summarize the noninvasive and invasive diagnostic modalities available, includ. indications and complications
   - Describe the behaviours of biological and synthetic grafts and their respective complications
   - Interpret appropriate biostatistics and epidemiology measures as they relate to Vascular Surgery

Perform a complete and appropriate assessment of a Vascular Surgery patient

   - Elicit a history that is relevant, clear, concise and accurate to context and preferences for the purposes of prevention and health promotion, diagnosis and/or management
   - Perform a focused physical examination that is relevant and accurate for the purposes of prevention and health promotion, diagnosis and/or management
   - Select medically appropriate investigative methods in a resource-effective and ethical manner
<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

**Use preventive and therapeutic interventions effectively**

Implement a management plan in collaboration with a patient and their family

Demonstrate appropriate and timely application of preventive and therapeutic interventions relevant to the practice of Vascular Surgery including risk factor modification

**Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic**

Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to Vascular Surgery, including invasive imaging modalities

Application and interpretation of venography, angiography and invasive imaging modalities

Apply knowledge and skills in the application of endovascular interventions, and other treatment modalities

**B. COMMUNICATOR - As Communicators, Vascular Surgeons effectively facilitate the doctor-patient relationship & the dynamic exchanges that occur before, during, & after the medical encounter.**

Develop rapport, trust, and ethical therapeutic relationships with patients and families

Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals

Convey relevant information and explanations accurately to patients and families, colleagues and other professionals

Develop a common understanding on issues, problems and plans with patients, families, & other professionals to develop a shared plan of care

Convey effective oral and written information about a medical encounter

**C. COLLABORATOR - As Collaborators, Vascular Surgeons effectively work within a health care team to achieve optimal patient care.**

Participate effectively and appropriately in an interprofessional Vascular Surgery team

Recognize and respect the diversity of roles, responsibilities and competences of other professionals in relation to their own
### C. COLLABORATOR - As Collaborators, Vascular Surgeons effectively work within a health care team to achieve optimal patient care.

| Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients) |  |  |  |  |  |
| Respect team ethics, including confidentiality, resource allocation and professionalism |  |  |  |  |  |
| Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team |  |  |  |  |  |
| Reflect on interprofessional team function |  |  |  |  |  |

### D. MANAGER -

- Describe the structure and function of the health care system as it relates to Vascular Surgery, including the roles of physicians
- Describe principles of health care financing, including physician remuneration, budgeting and organizational funding
- Set priorities and manage time to balance patient care, practice requirements, outside activities and personal life
- Employ information technology appropriately for patient care and life long learning
- Recognize the importance of just allocation of health care resources, balancing effectiveness, efficiency and access with optimal patient care
- Apply evidence and management processes for cost-appropriate care

### E. HEALTH ADVOCATE -

1. Understand the possibility of conflict of interest in performing the role as health advocate for a patient or community with that of being a manager or gate keeper

### F. SCHOLAR -

1. Pose an appropriate research question and describe the steps to answer that question
2. Develop, implement and monitor a personal continuing education strategy
3. Demonstrate knowledge of preferred learning methods in dealing with students, residents, and colleagues. Understand evaluation techniques and demonstrate the ability to help in the evaluation of more junior members of the team
4. Describe the process of performing a personal practice audit
G. PROFESSIONAL -

1. Pose and ethical question related to research and discuss the resolution of that question

2. Demonstrate professional behaviours in practice

3. Understand the importance of privacy and how it relates to communication with and about patients

DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical

Strengths:

- 
- 
- 

Areas for improvement: (If remedial work is recommended - please provide specific suggestions)

- 
- 
- 

Comments:

- 
- 
- 

ORAL EXAMINATION:

<table>
<thead>
<tr>
<th></th>
<th>Incomplete</th>
<th>Unsatisfactory</th>
<th>Provisional Satisfactory</th>
<th>Satisfactory</th>
</tr>
</thead>
</table>

OVERALL COMPETENCE:
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Were educational objectives / performance discussed with the resident:
- At the beginning of the rotation: ☐ Yes ☐ No
- At the midpoint of the evaluation: ☐ Yes ☐ No
- At the end of the rotation: ☐ Yes ☐ No

Was this evaluation completed by:
- ☐ an individual ____________________________
- ☐ a committee ____________________________

Was input obtained from other team members? ☐ Yes ☐ No

Evaluator Signature: ____________________________ Date: ____________________________
ANESTHESIA - SELECTIVE
ROTATION SPECIFIC GUIDELINES

In keeping with the specific standards of accreditation (2009) this rotation assumes administrative support and university affiliation.

The resident, upon orientation will review the Resident specific and College specific goals with his/ her preceptor to ensure adequate focus throughout the rotation. This rotation is a selective rotation taken in the PGY2.

I. MEDICAL EXPERT

General Requirements

- Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.
- Access and apply relevant information to clinical practice.
- Demonstrate effective consultation services with respect to patient care, education and legal opinions.

Specific Requirements

- Demonstrate knowledge of the basic sciences as applicable to anesthesia, including anatomy, physiology, pharmacology, biochemistry and physics.
- Demonstrate knowledge of the principles and practice of anesthesia as they apply to patient support during surgery or obstetrics.
- Demonstrate clinical skills necessary for basic resuscitation and life support as practiced in critical care facilities.
- Demonstrate knowledge of the principles of management of patients with acute and chronic pain.
- Demonstrate knowledge of the role of the consultant anesthesiologist in the provision of safe anesthetic services within both community and teaching facilities.
- Recognize that prior to provision of anesthetic care specific medical intervention and modification of risk factors may be required.
- Demonstrate knowledge of basic legal and bioethical issues encountered in anesthetic practice including informed consent.

II COMMUNICATOR

- The resident will be expected to ESTABLISH and maintain therapeutic relationships with both patients and their families. Communication will be assessed in both written and verbal areas.
General Requirements

- Obtain and collate relevant history from patients, and families.
- Listen effectively.
- Discuss appropriate information with patients and families and other members of the health care team.

Specific Requirements

- Demonstrate consideration and compassion in communicating with patients and families.
- Provide accurate information appropriate to the clinical situation.
- Communicate effectively with medical colleagues, nurses, and paramedical personnel in inpatient, outpatient, and operating room environments.
- Demonstrate appropriate oral and written communication skills.
- Ensure adequate information has been provided to the patient prior to undertaking invasive procedures.

III COLLABORATOR

The resident will be required to demonstrate an ability to interact with all other health care professionals including family, nursing and other physicians. Respect for the roles of other professionals will be an important component of this area.

This area will be assessed through:
1. feedback from nursing staff
2. information from other multidisciplinary team members
3. Other physician input.

360Deg Evaluation.

Specific Requirements

Demonstrate ability to function in the clinical environment using the full abilities of all team members.

IV MANAGER

The expectation of the resident is to utilize resources to balance patient care and to allocate finite resources wisely.

The resident will also be assessed in the ability to balance personal and professional activities and use their time to optimize patient care and CME.

Office administration, practice management and billing will be reviewed

Assessment
1. Ability to utilize resources wisely
2. Ability to time manage time correctly; promptness, prioritizing etc.
3. Utilize information technology to optimize patient care, and life long learning.
Specific Requirements

- Demonstrate knowledge of the management of operating rooms.
- Demonstrate knowledge of the contributors to anesthetic expenditures.
- Demonstrate knowledge of the guidelines concerning anesthetic practice and equipment in Canada.
- Record appropriate information for anesthetics and consultations provided.

V SCHOLAR

The resident will demonstrate the abilities to ASSESS, APPRAISE, ACQUIRE and CONTRIBUTE to lifelong learning. Scholarship relates to the self discipline of evaluating, reporting and incorporating new evidence into practice.

This will be assessed through.
1. The ability of the resident to incorporate self directed as well as preceptor directed specific learning goals throughout the rotation.
2. The ability of the resident to teach other health professionals in order to enhance patient care.
3. The residents’ ability to critically appraise their knowledge base, and procedural techniques.
4. Facilitate learning of patients, students, and other health professionals.

Evaluating of this area is once again difficult. The resident perhaps could be required to search out an evidence based change which could be incorporated into the practice where he/she is located.

VI HEALTH ADVOCATE

The resident is expected to consistently advocate for the health and care of the patient. This includes the role of the physician in recognizing and describing the health needs of the population.

This will be assessed through.
1. The resident interaction with the patient requiring concurrent care issues
2. The resident’s ability to negotiate for limited resources in patient prioritizing

It is imperative that the resident understands the need for advocacy of the patient as a group as well as an individual. Individual advocacy is usually well established in the early medical career but group advocacy integrates much later in practice.

In this arena evaluation is difficult; perhaps exposure to such areas as, speaking to the hospital foundation, administration, or the media could be covered.
Specific Requirements

- Provide direction to hospital administrators regarding compliance with national practice guidelines and equipment standards for anesthesia.
- Recognize the opportunities for anesthesiologists to advocate for resources for chronic pain management, emerging medical technologies and new health care practices in general.

VI HEALTH PROFESSIONAL

The resident will be expected in this rotation to adhere to a high standard of honesty, integrity, commitment, compassion, effectiveness, competence and altruism. Other areas of professional behavior to be assessed are manners, presentation skills, personal appearance, utilization of feedback and other evaluation tools.

Self-regulation in these areas is imperative. The resident will be expected to be accountable for all behaviors and recognize the boundaries between professional and personal realms.

Professionalism also includes self-directed learning and evaluation. This may be assessed through;

- Periodically review his/her own personal and professional performance against national standards.
- Include the patient in discussions concerning appropriate diagnostic and management procedures.
- Respect the opinions of fellow consultants and referring physicians in the management of patient problems and be willing to provide means whereby differences of opinion can be discussed and resolved.
- Show recognition of limits of personal skill and knowledge by appropriately consulting other physicians and paramedical personnel when caring for the patient.
- Establish a pattern of continuing development of personal clinical skills and knowledge through medical education.
Anesthesia

Junior Orthopaedic Resident rotating

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: ______________________</td>
<td>Resident Level: ___</td>
</tr>
<tr>
<td>Rotation Dates: ______________________________</td>
<td></td>
</tr>
<tr>
<td>Attending Staff: ______________________________</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

**A. MEDICAL EXPERT:** As Medical Experts, Anesthesiologists integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

At the completion of the rotation, the resident will have acquired the following competencies and will function effectively as a Medical Expert/Clinical Decision-maker:

- Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.
- Access and apply relevant information to clinical practice.
- Demonstrate knowledge of the basic sciences as applicable to anesthesiology, including anatomy, physiology, pharmacology, biochemistry and physics.
- Demonstrate knowledge of general internal medicine with particular reference to the cardiovascular, respiratory, renal, hepatic, endocrine, hematologic and neurologic systems.
- Demonstrate knowledge of age related variables in medicine as they apply to neonatal, pediatric, adult and geriatric patient care.
- Demonstrate knowledge of the principles and practice of anesthesiology as they apply to patient support during surgery or obstetrics.
- Demonstrate clinical skills necessary for basic resuscitation and life support as practiced in critical care facilities.
- Demonstrate knowledge of the principles of management of patients with acute and chronic pain.
- Recognize that prior to provision of anesthetic care specific medical intervention and modification of risk factors may be required.
- Demonstrate knowledge of basic legal and bioethical issues encountered in anesthetic practice including informed consent.
Fails to Meet
Meets Expectations
Exceeds
N/A
Marginal 1 2 3 4

B. COMMUNICATOR - As Communicators, effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

Establish a professional relationship with patients & families.
Obtain and collate relevant history from patients, & families.
Discuss appropriate information with patients and families and other members of the health care team.
Demonstrate consideration and compassion in communicating with patients and families.
Provide accurate information appropriate to the clinical situation.
Communicate effectively with medical colleagues, nurses, and paramedical personnel in inpatient, outpatient, and operating room environments.
Demonstrate appropriate oral & written communication skills.

C. COLLABORATOR - As Collaborators, effectively work within a health care team to achieve optimal patient care

Consult effectively with other physicians and health care professionals
Contribute effectively to other interdisciplinary team activities.
Demonstrate ability to function in the clinical environment using the full abilities of all team members.

D. MANAGER - As Managers, are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.

Utilize personal resources effectively in order to balance patient care, continuing education, and personal activities
Allocate finite health care resources wisely
Work effectively and efficiently in a health care organization.
Demonstrate knowledge of the management of operating rooms
Record appropriate information for anesthetics and consultations provided

E. HEALTH ADVOCATE - As Health Advocates, responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations

Identify the important determinants of health affecting patients.
Contribute effectively to improved health of patients and communities.
Recognize and respond to those issues where advocacy is appropriate
<table>
<thead>
<tr>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**F. SCHOLAR** - As Scholars, demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

- Develop, implement, and monitor a personal continuing education strategy.

**G. PROFESSIONAL** - As Professionals, are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

- Deliver highest quality care with integrity, honesty and compassion.
- Exhibit appropriate personal and interpersonal professional behaviours.
- Practice medicine ethically consistent with the obligations of a physician respecting the needs of culture, race and gender.
- Periodically review his/her own personal and professional performance against national standards.
- Include the patient in discussions concerning appropriate diagnostic and management procedures.
- Respect the opinions of fellow consultants and referring physicians in the management of patient problems and be willing to provide means whereby differences of opinion can be discussed and resolved.
- Show recognition of limits of personal skill and knowledge by appropriately consulting other physicians and paramedical personnel when caring for the patient.
- Establish a pattern of continuing development of personal clinical skills and knowledge through medical education.

**DESCRIPTIVE RESPONSES**

For any items scored 0 or 1, specific comments are critical

**Strengths:**

- 
- 

**Areas for improvement:** (If remedial work is recommended - please provide specific suggestions)

- 
- 

**Comments:**
## ORAL EXAMINATION:

<table>
<thead>
<tr>
<th>Incomplete</th>
<th>Meets Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

### OVERALL COMPETENCE:

Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Were educational objectives / performance discussed with the resident:

- At the beginning of the rotation:  □ Yes  □ No
- At the midpoint of the evaluation:  □ Yes  □ No
- At the end of the rotation:  □ Yes  □ No

Was this evaluation completed by:

- □ an individual ____________________________
- □ a committee ____________________________

Was input obtained from other team members?  □ Yes  □ No

Evaluator Signature: ____________________________  Date: ____________________________

Resident Signature: ____________________________  Date: ____________________________
Emergency Medicine
Off - Service

ROTATION SPECIFIC GUIDELINES

DEFINITION
Emergency Medicine is the branch of specialty practice that is concerned with the management of the broad spectrum of acute illnesses and injury in all age groups. The Specialist in Emergency Medicine is foremost a clinician who uses highly developed clinical reasoning skills to care for patients with acute and often undifferentiated medical problems, frequently before complete clinical or diagnostic information is available. The Specialist in Emergency Medicine is an academic and community resource, providing leadership in the administration of Emergency Departments, Emergency Medical Systems and programs and the conduct of relevant research and education. He/she assumes these roles with the goal of advancing knowledge and improving individual and/or community health outcomes.

Medical Expert
Definition: As Medical Experts, Specialist Emergency Physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

Key and Enabling Competencies: Specialist Emergency Physicians are able to...
1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care
   1.1. Effectively perform a consultation, including the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional including: community family physicians, referring emergency physicians and other specialists for a patient requiring emergency care
   1.2. Recognize and respond to the ethical dimensions in medical decision-making, specifically in an Emergency Medicine practice context where consent is not always obtainable
   1.3. Demonstrate compassionate and patient-centered care
   1.4. Demonstrate medical expertise in situations other than patient care, such as advising hospital and/or regional health authorities; advising government agencies or providing expert legal opinions

2. Establish and maintain clinical knowledge, skills and attitudes necessary to rapidly assess and manage a full spectrum of patients, often concomitantly, with acute or undifferentiated illness and injury
   2.3.1. The principles of Resuscitation and Critical Care Management
   2.3.2. Trauma, including the following:
   2.3.2.1. General concepts in the management of the traumatized patient
   2.3.2.2. Injuries to the following areas / body systems:
   2.3.2.2.1. Head
   2.3.2.2.2. Face
   2.3.2.2.3. Spine
2.3.2.2.4. Neck
2.3.2.2.5. Thorax
2.3.2.2.6. Abdomen
2.3.2.2.7. Genitourinary
2.3.2.2.8. Peripheral vascular
2.3.2.2.9. Orthopedic injuries and lesions
2.3.2.2.10. Soft tissue injuries
2.3.2.2.11. Violence and abuse

2.3.3.2. Neurological
2.3.3.2.1. Altered mental status
2.3.3.2.2. Ataxia
2.3.3.2.3. Coma
2.3.3.2.4. Confusion
2.3.3.2.5. Decreased level of consciousness
2.3.3.2.6. Dizziness
2.3.3.2.7. Headache
2.3.3.2.8. Paralysis

2.3.3.3. Cardio-Pulmonary
2.3.3.3.1. Chest pain
2.3.3.3.2. Cough
2.3.3.3.3. Cyanosis
2.3.3.3.4. Dyspnea
2.3.3.3.5. Edema
2.3.3.3.6. Hemoptysis
2.3.3.3.7. Syncope
2.3.3.3.8. Palpitations
2.3.3.3.9. Wheezing
2.3.3.3.10. Abdominal
2.3.3.3.11. Hematemesis
2.3.3.3.12. Jaundice
2.3.3.3.13. Rectal bleeding

2.3.3.6. Musculoskeletal
2.3.3.6.1. Back pain
2.3.3.6.2. Joint pain/Swelling
2.3.3.7. Systemic
2.3.3.7.1. Fever
2.3.3.7.2. Hypotension
2.3.3.7.3. Rash
2.3.3.7.4. Shock
2.3.3.7.5. Weakness

3. Perform a complete and appropriate assessment of a patient, meaning a selective, accurate and well organized history and physical examination

3.1. Triage and set appropriate priorities when dealing with single or multiple critically ill patients
3.2. Perform accurate and complete clinical assessments of patients presenting with non-specific clinical complaints and syndromes

4. Select appropriate investigations, including laboratory and diagnostic imaging, with careful attention to patient safety, diagnostic utility and cost, and interpret the results accurately and within their clinical context

4.2. Select medically appropriate investigative methods in a resource-effective and ethical manner with attention to their diagnostic utility, safety, availability and cost
4.3. Ensure informed consent is obtained for investigations, when indicated and feasible
4.6. Ensure that adequate follow-up is arranged for the results of investigations

5. Use preventive and therapeutic interventions relevant to Emergency Medicine in a safe, effective, appropriate and timely manner

5.1. Use sound clinical reasoning and judgment to guide diagnosis and management and arrive at appropriate decisions even in circumstances where complete clinical or diagnostic information is not immediately available
5.2. Recognize and manage crisis situations/critically ill patients in a calm, prompt and skilful manner
5.3. Effectively and appropriately prioritize professional duties when faced with multiple patients and problems
5.4. Implement an effective and appropriate management plan, in collaboration with a patient and his/her defined family unit when possible

6. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic and select and perform these medical procedures in an appropriate, safe and skilful manner with due attention to minimizing patient risk and discomfort

6.1.1. Select and perform minor diagnostic procedures relevant to all age groups and to the daily practice of Emergency Medicine, including (but not limited to):
   6.1.1.1. Arterial puncture
   6.1.1.2. Venapuncture
   6.1.1.6. Arthrocentesis of knee

6.1.2. Select and perform diagnostic procedures relevant to all age groups and to the critically ill patient, including (but not limited to):
   6.1.2.1. Lumbar puncture and measurement of CSF pressure

6.1.3. Select and interpret appropriate plain film radiographs
6.1.4. Select appropriate computed tomographic examinations

6.1.5. Perform and interpret targeted Emergency Department ultrasound examinations including:
   6.1.5.1. Facilitation of vascular access
   6.1.5.2. Presence of intraperitoneal free fluid

6.1.8. Select and perform techniques in peripheral and central vascular access and line insertion/monitoring, relevant to all age groups, including (but not limited to):
   6.1.8.1. PEDIATRIC:
   6.1.8.1.2. Peripheral vein
   6.1.8.1.3. Intraosseous
6.1.8.2. ADULT:
6.1.8.2.1. Peripheral vein
6.1.8.2.2. Intraosseous
6.1.8.2.3. External jugular
6.1.8.2.4. Internal jugular
6.1.8.2.5. Subclavian
6.1.8.2.6. Femoral
6.1.8.2.7. Arterial catheterization

6.1.10. Select and perform local/regional anesthesia and procedural sedation for all patient populations, when indicated, including (but not limited to):
   6.1.10.1. Topical anesthesia
   6.1.10.2. Field block anesthesia
   6.1.10.3. Nerve block anesthesia
   6.1.10.3.1. Digital/metacarpal
   6.1.10.4. Pediatric and adult procedural sedation

6.1.11. Select and perform care and techniques of simple and complex wound repair for all age groups, including (but not limited to):
   6.1.11.1. Basic wound debridement
   6.1.11.2. Application of bandages/dressings
   6.1.11.3. Closure with tissue adhesive glue
   6.1.11.4. Suturing – single and multiple layer closure
   6.1.11.5. Closure with staples
   6.1.11.6. Wound hematoma evacuation
   6.1.11.7. Extensor tendon repair
   6.1.11.8. Nail bed laceration repair
   6.1.11.9. Management of finger tip amputation

6.1.12. Select and perform various means of foreign body extraction from body orifices and soft tissue for all age groups, including (but not limited to):
   6.1.12.1. Removal of foreign body in the skin/subcutaneous tissues

6.1.13. Select and perform definitive interventions for soft tissue infections for all age groups, including (but not limited to):
   6.1.13.1. Needle aspiration of abscess
   6.1.13.2. Incision and drainage of abscess
   6.1.13.3. Packing of abscess cavity
   6.1.14. Manage fractures and dislocations for all age groups, including (but not limited to):
   6.1.14.2. Immobilization of unstable pelvic fractures
   6.1.14.3. Application and removal of femoral traction device
   6.1.14.4. Rigid splint immobilization of extremity fractures
   6.1.14.5. Circumferential cast immobilization of extremity fractures
   6.1.14.6. Application of walking cast
   6.1.14.7. Application of upper extremity slings
   6.1.14.8. Stabilization and immobilization of uncomplicated upper and lower extremity fractures
   6.1.14.9. Temporary reduction and immobilization of any displaced fracture for the relief of pain and/or neurovascular compromise
   6.1.14.10. Definitive reduction and immobilization of the following displaced fractures when appropriate:
   6.1.14.10.1. Distal radius
6.1.14.10.2. Fifth metacarpal neck
6.1.14.10.3. Phalanx
6.1.14.11. Splinting of tendon and ligament injuries of the hand, including:
   6.1.14.11.1. Volar plate injury
   6.1.14.11.2. Mallet finger injury
   6.1.14.11.3. Swan neck deformity
   6.1.14.11.4. Boutoniere deformity
6.1.14.12. Reduction of subluxations and dislocations including:
   6.1.14.12.2. Radial head subluxation
   6.1.14.12.4. Interphalangeal

6.2. Possess a fundamental knowledge of the indications, contraindications, methods and potential complications of the less common but necessary medical therapeutic and investigative procedures employed in the practice of Emergency Medicine. Have, at a minimum, demonstrated the ability to describe these procedures:
   6.2.1. Minor diagnostic procedures
      6.2.1.1. Wet mount of vaginal fluid
      6.2.1.2. Arthrocentesis of:
         6.2.1.2.1. Shoulder
         6.2.1.2.2. Elbow
         6.2.1.2.3. Ankle
         6.2.1.2.4. Wrist
         6.2.1.2.5. Digits

**Communicator**

**Definition:**
As **Communicators**, Specialist Emergency Physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

**Key and Enabling Competencies: Specialist Emergency Physicians are able to...**
1. Develop rapport, trust, positive and ethical therapeutic relationships with patients and their defined family units
   1.1. Recognize that good communication is a core clinical skill for the Specialist Emergency Physician, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence and improved clinical outcomes
   1.2. Establish positive therapeutic relationships with patients and their defined family units that are characterized by understanding, trust, respect, honesty and empathy
   1.3. Respect patient confidentiality, privacy and autonomy
   1.4. Use language and terminology that facilitates understanding and decision-making by patients and their defined family units
   1.5. Listen effectively
   1.6. Be aware and responsive to nonverbal cues
   1.7. Effectively facilitate a structured clinical encounter
   1.8. Be knowledgeable of and attentive to different ethnic, social and cultural Backgrounds

2. Accurately elicit and synthesize relevant information and perspectives of patients, defined families units, colleagues, and other professionals
ITER - ER Off Service

MEDICAL EXPERT

<table>
<thead>
<tr>
<th>Demonstrate diagnostic and therapeutic skills for ethical and effective patient care</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Access and apply relevant information to clinical practice</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonstrate effective consultation services with respect to patient care, education and legal opinions</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonstrate an understanding of the pathophysiology of disease and injury and the natural history of disease and illness</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonstrated competency in patient care and decision making for the emergency patient</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonstrate the prompt recognition of acute illness and injury</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perform a clinical assessment and collect all appropriate information</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Develop appropriate differential diagnosis and initiate management of:

<table>
<thead>
<tr>
<th>1. Acute illness/injury</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Traumatized patients</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Acute age related disorders</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>a. Paediatrics</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. Geriatrics</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Toxicological disorders</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Environmental disorders</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonstrates understanding of the requirements for follow up care</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

The resident during their Emergency Medicine rotation should demonstrate competency in the following procedures or techniques:

<table>
<thead>
<tr>
<th>a. Airway management</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. Analgesia - conscious sedation</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>c. Anesthesia - local and nerve blocks</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>d. Arterial and venous access</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>e. Bladder catheterization/irrigation</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
f. Cardiopulmonary resuscitation (CPR)  
g. Chest decompression  
h. Dental trauma  
i. Epistaxis management  
j. Fractures - stabilization / reduction / immobilization  
k. Gastric lavage  
l. Joint aspiration  
m. Joint dislocation: reduction and immobilization  
n. Removal of foreign bodies  
o. Tonometry  
op. Use of slit lamp  
q. Wound management - abscess / infection, animal / human bites, local anesthesia, and suturing  

<table>
<thead>
<tr>
<th>COMMUNICATOR</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses concerns, conflict, complaints, within the multi-disciplinary team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicates effectively and compassionately with the patient and family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete the emergency chart in a comprehensive and legible manner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discuss appropriate information with patients / families and the health care team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish therapeutic relationships with patients / families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtain and synthesize relevant history from patients / families / communities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the importance of a multidisciplinary team and interact in an appropriate and effective manner with consultant physicians, nurses, and other health professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COLLABORATOR</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrated understanding the importance of a multidisciplinary team and interact effectively with physicians, nurses, and other health professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consult effectively with other physicians and health care professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribute effectively to other interdisciplinary team activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate an understanding of the relationship of the emergency department with the EMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### MANAGER

<table>
<thead>
<tr>
<th>Metric</th>
<th>N/A</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocates finite health care resources wisely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the basic principles of quality assurance/risk management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>issues and Medical-legal aspects of patient care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilize information technology to optimize patient care, life-long</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>learning and other activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilized resources effectively to balance patient care, learning needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and outside activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work effectively and efficiently in a health care organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage one section of the emergency department during a shift with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>respect to flow, efficiency, and best patient care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the basics of department management with respect to the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>function of the patient board and the role of the charge nurse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HEALTH ADVOCATE

<table>
<thead>
<tr>
<th>Metric</th>
<th>N/A</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribute effectively to improved health of patients and communities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate an understanding of the bioethical issues affecting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify the important determinants of health affecting patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize and respond to those issues where advocacy is appropriate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate an understanding of the support services in the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>community such as CCAC (Homecare), homeless shelters, detox services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for patients being discharged from the ED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SCHOLAR

<table>
<thead>
<tr>
<th>Metric</th>
<th>N/A</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn to evaluate best practices for patient care decisions, based</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>on critical appraisal of relevant literature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribute to development of new knowledge through participation in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>departmental research activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate the skills of self-assessment and self-directed learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by identifying their own areas of improvement and addressing them with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>resources available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop, implement and monitor a personal continuing education strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Facilitates learning of patients, medical trainees / students and other health professionals

**PROFESSIONAL**

<table>
<thead>
<tr>
<th></th>
<th>N/A</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivers highest quality care with integrity, honesty and compassion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Demonstrate the maturity and responsibility expected of all professionals, through:**

<table>
<thead>
<tr>
<th></th>
<th>N/A</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Reliability, punctuality, and attendance</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Self-assessment and insight</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Exhibit appropriate personal and interpersonal professional behaviours</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Practice medicine ethically consistent with obligations of a physician</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Demonstrate understanding of:**

<table>
<thead>
<tr>
<th></th>
<th>N/A</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations - Marginal</th>
<th>3 Meets Expectations - Satisfactory Progress</th>
<th>4 Meets Expectations - Fully</th>
<th>5 Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The concepts of informed consent in the care of children, adults, and the elderly</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Advanced directives, DNR requests, and their application to the care of patients</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. And be to explain what is involved in the withdrawal of care.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. The concept of futility and apply it to emergent situations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Educational Recommendations:**

<table>
<thead>
<tr>
<th></th>
<th>Incomplete</th>
<th>Unsatisfactory</th>
<th>Provisional Satisfactory</th>
<th>Satisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Overall Evaluation of Resident's Performance</em></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**DESCRIPTIVE RESPONSES**

For any items scored 1 or 2, specific comments are critical.

1 - Strengths:

2 - Areas for improvement: (If remedial work is recommended - please provide specific suggestions)
ORAL EXAMINATION:

**Were educational objectives / performance discussed with the resident:**

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the beginning of the rotation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the midpoint of the evaluation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the end of the rotation:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>An Individual</th>
<th>A Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was this evaluation completed by:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was input obtained from other team members?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><em>Overall Evaluation of Resident's Performance</em></th>
<th>Incomplete</th>
<th>Unsatisfactory</th>
<th>Provisional Satisfactory</th>
<th>Satisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The following will be displayed on forms where feedback is enabled...*

*(for the evaluator to answer...)*

*Did you have an opportunity to meet with this trainee to discuss their performance?*

- Yes
- No

*(for the evaluatee to answer...)*

*Did you have an opportunity to discuss your performance with your preceptor/supervisor?*

- Yes
- No

*Are you in agreement with this assessment?*

- Yes
- No

Please enter any comments you have(if any) on this evaluation.
In keeping with the specific standards of accreditation (2009) this rotation assumes administrative support and university affiliation.

At the completion of training, the resident will have acquired the following competencies:

**Medical Expert**

**Definition:**
As *Medical Experts*, General Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. *Medical Expert* is the central surgeon Role in the CanMEDS framework.

**Key and Enabling Competencies:**
1. **Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care**
   1.1. Perform a consultation, including the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional
   1.3. Identify and appropriately respond to relevant ethical issues arising in patient care
   1.4. Demonstrate the ability to prioritize professional duties when faced with multiple patients and problems
   1.5. Demonstrate compassionate and patient-centered care

2. **Establish and maintain clinical knowledge, skills and attitudes appropriate to General Surgery**
   2.1.1. Demonstrate appropriate interpretations, judgement and skills in general surgical diagnostic techniques including endoscopy and minimal access surgery to manage adult and pediatric patients with the following:
      2.1.1.2. Trauma and critical illness, including emergency and intensive care
      2.1.1.3. Surgical oncological diseases, including multidisciplinary management of cancer patients
      2.1.1.6. Surgical infections and inflammatory diseases
      2.1.1.7. Abdominal wall disorders
      2.1.1.8. Skin and soft tissue diseases
   2.1.2. Demonstrate principles of surgical management in order to provide effective care exclusive of major surgical techniques related to the following:
      2.1.2.4. Thoracic surgery
      2.1.2.5. Vascular surgery
      2.1.2.6. Orthopedic trauma involving neurovascular compromise
      2.1.2.7. Interventional imaging technologies

3. **Perform a complete and appropriate assessment of a patient**
3.1. Identify and explore issues to be addressed in a patient encounter effectively, including the patient’s context and preferences
3.2. Elicit a history that is relevant, concise and accurate to context and preferences for the purposes of prevention and health promotion, diagnosis and/or management
3.3. Perform a focused physical examination that is relevant and accurate for the purposes of prevention and health promotion, diagnosis and/or management
3.4. Select medically appropriate investigative methods in a resource-effective and ethical manner
3.5. Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

4. Use preventive and therapeutic interventions effectively
4.1. Implement management plans in collaboration with patients and families
4.2. Demonstrate appropriate, and timely application of preventive and therapeutic interventions relevant to the surgeon’s practice
4.3. Ensure appropriate informed consent is obtained for therapies
4.4. Ensure patients receive appropriate end-of-life care

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic
5.2. Demonstrate effective, appropriate, and timely performance of therapeutic procedures relevant to General Surgery
5.2.1.3. Manage intraoperative life-threatening hemorrhage, through control of arteries and veins
5.2.1.7. Manage operatively the critically injured patient including thoracostomy; thoracotomy; surgical airway; central venous, peripheral venous and arterial access; and trauma laparotomy
5.2.1.8. Resect, reconstruct and preserve skin and soft tissues
5.3. Ensure appropriate informed consent is obtained for procedures
5.4. Document and disseminate information related to procedures performed and their outcomes
5.5. Ensure adequate follow-up is arranged for procedures performed

6. Seek appropriate consultation from other health professionals, recognizing the limits of their expertise
6.1. Demonstrate insight into their own limitations of expertise
6.2. Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal patient care
6.3. Arrange appropriate follow-up care services for a patient and their family

Communicator
Definition:
As Communicators, General Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. Develop rapport, trust, and ethical therapeutic relationships with patients and families
1.1. Recognize the importance of communication as a core clinical skill for surgeons
1.2. Establish positive therapeutic relationships with understanding, trust, respect, honesty and empathy
1.3. Respect patient confidentiality, privacy and autonomy
1.4. Listen effectively and respond to nonverbal cues

2. **Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals**
   2.1. Gather information about a disease and also about a patient’s beliefs, concerns, expectations and illness experience
   2.2. Seek out and synthesize relevant information from other sources, such as a patient’s family, caregivers and other professionals
   2.3. Obtain information accurately and effectively under time constraints such as before emergency operations

4. **Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care**
   4.1. Identify and explore problems to be addressed from a patient encounter effectively, including the patient’s context, responses, concerns, and preferences
   4.3. Respect diversity and difference, including but not limited to the impact of gender, religion and cultural beliefs on decision-making
   4.4. Encourage discussion, questions, and interaction in order to engage patients, families, and relevant health professionals in shared decision-making
   4.5. Manage challenging communication issues effectively, such as delivering bad news, disclosing surgical error, and dealing with anger, confusion and misunderstanding

5. **Convey effective oral and written information about a medical encounter**
   5.1. Maintain accurate, and appropriate records of procedures and other clinical encounters, that include the key elements that guide decision making
   5.2. Document the process of informed consent for operative and other interventions
   5.3. Present verbal reports of clinical encounters and plans

**Collaborator**

**Definition:**
As Collaborators, General Surgeons effectively work within a health care team to achieve optimal patient care.

1.2. Recognize and respect the diverse roles, responsibilities, ethics and competences of other professionals

1.3. Recognized disparate resource needs of other professionals

3. **Respect team ethics, including confidentiality, resource allocation and professionalism**
   3.1. Preserve confidentiality of patients and caregivers

4. **Work with others effectively to plan and care for patients**
   4.1. Work with others to assess and plan care of specific populations of patients
       4.1.1. Participate in the multidisciplinary management of cancer patients
       4.1.2. Lead effectively the multidisciplinary care of critically ill patients including those with multiple trauma
       4.1.3. Seek appropriate input from colleagues in planning treatment
   4.2. Work with other members of the operating team to provide safe and effective care for patients
       4.2.1. Participate and lead where appropriate in a pause or checklist immediately before incision
       4.2.2. Communicate clearly and concisely with all operating team members in the operating room
4.2.4. Work with operating team members to transfer safely patients and their relevant information to postoperative care providers

4.3. Interact with colleagues to optimize the quality of postoperative medical care
   4.3.1. Utilize the expertise and availability of those involved in pain management to optimize postoperative pain control
   4.3.2. Consult and work with experts in critical care and other disciplines including allied health professionals

**Manager**

**Definition:**
As Managers, General Surgeons are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of health care systems.

**Key and Enabling Competencies: General Surgeons are able to...**
1. **Contribute to the effectiveness of their health care organizations and systems**
   1.1. Work effectively with others in their organizations

2. **Manage their practice and career effectively**
   2.1. Set priorities and manage time to balance professional and personal life
   2.3. Implement processes to ensure professional improvement
   2.4. Employ information technology appropriately

**Health Advocate**

**Definition:**
As Health Advocates, General Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

**Key and Enabling Competencies: General Surgeons are able to...**
1. **Respond to individual patient health needs as part of patient care**
   1.1. Identify the health needs of an individual patient
       1.1.2. Promote smoking cessation and be aware of available resources
       1.1.3. Advise patients against high risk behaviours such as drinking and driving
       1.1.4. Establish priorities for the care of individual patients whose needs compete with others for scarce resources

**Scholar**

**Definition:**
As Scholars, General Surgeons demonstrate a lifelong commitment to reflective learning, and creation, dissemination, application and translation of new knowledge and technologies that inform each CanMEDS domain.

1. **Maintain and enhance professional activities through ongoing learning**

**Professional**

**Definition:**
As Professionals, General Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

1. Demonstrate a commitment and accountability to their patients, profession, and society through ethical practice

1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism
1.2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence
1.2.1. Accept responsibility for the overall care of the surgical patient
1.3. Recognize and appropriately respond to ethical issues encountered in practice
1.3.1. Establish appropriate and ethical relationship with colleagues, patients and relatives, industry, advocacy groups and other organizations
1.3.2. Disclose adverse events and outcomes openly and honestly
1.3.3. Describe the principles of biomedical ethics
1.3.4. Apply the principles of patient autonomy, beneficence and non-maleficence to surgical decision making
1.4. Recognize, manage and disclose, where appropriate, conflicts of interest
1.5. Recognize the principles and limits of patient and colleague confidentiality as defined by professional practice standards and the law

2. Demonstrate a commitment and accountability to their patients, profession and society through participation in profession-led regulation and improvement

2.1. Demonstrate knowledge and an understanding of the professional, legal and ethical codes of practice
2.2. Fulfill the regulatory and legal obligations required of current practice
2.2.1. Explain the principles of medical jurisprudence
2.3. Demonstrate accountability to professional regulatory bodies
2.4. Recognize and respond to others’ unprofessional behaviour in practice
2.5. Participate in peer review of the processes and outcomes of medical and surgical care

3. Demonstrate a commitment to surgeon health and sustainable practice

3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice
3.1.1. Demonstrate self-awareness of professional limitations
3.1.2. Recognize and manage occupational health risks from disease transmission, substance abuse, fatigue and overwork
3.1.3. Prevent, recognize and manage personal health impairment that may affect surgical competence
3.2. Strive to heighten personal and professional awareness and insight
3.3. Recognize other professionals in need and respond appropriately

4. Recognize the importance of role modeling

4.1. Act as positive role models for colleagues, trainees and other health professionals
4.2. Reflect positively the role of general surgeons in society
## General Surgery Off Service
### In Training Evaluation Report

<table>
<thead>
<tr>
<th>Name</th>
<th>Level (PGY1):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation:</td>
<td></td>
</tr>
<tr>
<td>Hospital:</td>
<td>HGH</td>
</tr>
<tr>
<td>Start date:</td>
<td></td>
</tr>
<tr>
<td>End date:</td>
<td></td>
</tr>
<tr>
<td>Supervisor(s):</td>
<td></td>
</tr>
</tbody>
</table>

(Please complete shaded areas)

### Evaluation Domains:

**Medical Expert**

*As Medical Experts, General Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central surgeon Role in the CanMEDS framework.*

Proficiency in:

<table>
<thead>
<tr>
<th></th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations-Marginal</th>
<th>3 Meets Expectations-Satisfactory Progress</th>
<th>4 Meets Expectations – Fully</th>
<th>5 Exceeds</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform a consultation, including</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and appropriately respond to relevant ethical issues arising in patient care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate the ability to prioritize professional duties when faced with multiple patients and problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate compassionate and patient-centered care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Demonstrate appropriate interpretations, judgement and skills in general surgical diagnostic techniques including endoscopy and minimal access surgery to manage adult and pediatric patients with the following:**

- Trauma and critical illness, including emergency and intensive care
- Surgical oncological diseases, including multidisciplinary management of cancer patients
- Surgical infections and inflammatory diseases
- Abdominal wall disorders
- Skin and soft tissue diseases

**Perform a complete and appropriate assessment of a patient**

**Use preventive and therapeutic interventions effectively**

**Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic**

**Seek appropriate consultation from other health professionals, recognizing the limits of their expertise**

**COMMENTS:** Please give examples and elaborate on strengths and weaknesses identified
Collaborator
As Collaborators, General Surgeons effectively work within a health care team to achieve optimal patient care.

<table>
<thead>
<tr>
<th>Proficiency in:</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations-Marginal</th>
<th>3 Meets Expectations-Satisfactory Progress</th>
<th>4 Meets Expectations – Fully</th>
<th>5 Exceeds</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respect team ethics, including confidentiality, resource allocation and professionalism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Communicator
As Communicators, General Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

<table>
<thead>
<tr>
<th>Proficiency in:</th>
<th>1 Fails to Meet</th>
<th>2 Meets Expectations-Marginal</th>
<th>3 Meets Expectations-Satisfactory Progress</th>
<th>4 Meets Expectations – Fully</th>
<th>5 Exceeds</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop rapport, trust, and ethical therapeutic relationships with patients and families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize the importance of communication as a core clinical skill for surgeons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish positive therapeutic relationships with understanding, trust, respect, honesty and empathy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect patient confidentiality, privacy and autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COMMENTS: Please give examples and elaborate on strengths and weaknesses identified.

|                                                                                       |                 |                               |                                            |                               |            |     |
|                                                                                       |                 |                               |                                            |                               |            |     |
|                                                                                       |                 |                               |                                            |                               |            |     |
| Work with others effectively to plan and care for patients |  |  |  |  |  |
| Work with others to assess and plan care of specific populations of patients |  |  |  |  |  |
| Participate in the multidisciplinary management of cancer patients |  |  |  |  |  |
| Lead effectively the multidisciplinary care of critically ill patients including those with multiple trauma |  |  |  |  |  |
| Seek appropriate input from colleagues in planning treatment |  |  |  |  |  |
| Work with other members of the operating team to provide safe and effective care for patients |  |  |  |  |  |
| Participate and lead where appropriate in a pause or checklist immediately before incision |  |  |  |  |  |
| Communicate clearly and concisely with all operating team members in the operating room |  |  |  |  |  |
| Work with operating team members to transfer safely patients and their relevant information to postoperative care providers |  |  |  |  |  |
| Interact with colleagues to optimize the quality of postoperative medical care |  |  |  |  |  |
| Utilize the expertise and availability of those involved in pain management to optimize postoperative pain control |  |  |  |  |  |
| Consult and work with experts in critical care and other disciplines including allied health professionals |  |  |  |  |  |

**COMMENTS:** Please give examples and elaborate on strengths and weaknesses identified

<table>
<thead>
<tr>
<th>Manager</th>
<th>Proficiency in:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
</tbody>
</table>

i) **RESOURCE ALLOCATION**
   - Uses available resources effectively and considers alternate management options-orders tests appropriately

ii) **ORGANIZATION OF WORKLOAD**
    - Works effectively and efficiently. Ability to prioritize, delegate and manage simultaneous tasks

**COMMENTS:** Please give examples and elaborate on strengths and weaknesses identified

<table>
<thead>
<tr>
<th>Health Advocate</th>
<th>Proficiency in:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

|          |          |          |          |          |          |          |
### General Surgery Off Service

#### In Training Evaluation Report

<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations-Marginal</th>
<th>Meets Expectations-Satisfactory Progress</th>
<th>Meets Expectations – Fully</th>
<th>Exceeds</th>
</tr>
</thead>
</table>

1. **PATIENT INTERVENTION**
   - Intervenes on behalf of patients with respect to their care

2. **PATIENT SAFETY**
   - Recognizes and responds appropriately in advocacy situations particularly with regard to patient safety

3. **GUIDELINES**
   - Demonstrates knowledge of the guidelines concerning surgery practice and equipment in Canada

**COMMENTS:** Please give examples and elaborate on strengths and weaknesses identified

---

### Scholar

<table>
<thead>
<tr>
<th>Proficiency in:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
<td>Meets Expectations-Marginal</td>
<td>Meets Expectations-Satisfactory Progress</td>
<td>Meets Expectations – Fully</td>
<td>Exceeds</td>
<td>NA</td>
</tr>
</tbody>
</table>

1. **LEARNING**
   - Demonstrates a commitment to continuing personal education.

2. **CRITICAL APPRAISAL**
   - Ability to critically appraise sources of medical information; uses evidence in clinical decision making

3. **TEACHING**
   - Education of patients and other health care professionals. Presentation of Rounds

**COMMENTS:** Please give examples and elaborate on strengths and weaknesses identified

---

### Professional

<table>
<thead>
<tr>
<th>Proficiency in:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
<td>Meets Expectations-Marginal</td>
<td>Meets Expectations-Satisfactory Progress</td>
<td>Meets Expectations – Fully</td>
<td>Exceeds</td>
<td>NA</td>
</tr>
</tbody>
</table>

1. **PATIENT-PHYSICIAN RELATIONSHIPS**
   - Ability to establish effective relationships with patients and relatives.

2. **PHYSICIAN RELATIONSHIPS**
   - Develops effective professional relationships with other health care professionals.
### General Surgery Off Service

#### In Training Evaluation Report

<table>
<thead>
<tr>
<th>iii) SENSE OF RESPONSIBILITY</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivers the highest quality of care with integrity &amp; honesty.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>iv) SENSE OF COMPASSION</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates compassion in providing care to patients and their families</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>iv) ETHICS</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates an understanding of the principles of bioethics and applies these in clinical situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>v) INSIGHT</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates an awareness of own limitations, seeking advice when necessary.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>vi) WORK ETHIC/DEPENDABILITY</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**COMMENTS:** Please give examples and elaborate on strengths and weaknesses identified

---

**OVERALL COMMENTS:** Please give examples and elaborate on strengths and weaknesses identified

**Strengths:**

---

**Weaknesses:**

---

**Overall Evaluation of Resident’s Performance**

<table>
<thead>
<tr>
<th>Incomplete</th>
<th>Unsatisfactory</th>
<th>Provisional Satisfactory</th>
<th>Satisfactory</th>
</tr>
</thead>
</table>

**Discussed with the Resident**  
☐ Yes  ☐ No  
*Please give reasons if not discussed with the Resident:*

---

**Resident’s comments:**

---

**Name of Supervisor**

**Signature of Supervisor**  
Date

**Signature of Resident**  
Date
<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: ______________________</td>
<td>Resident Level: ___</td>
</tr>
<tr>
<td>Rotation Dates: ______________________________</td>
<td>0</td>
</tr>
<tr>
<td>Attending Staff: ______________________________</td>
<td></td>
</tr>
</tbody>
</table>

A. **MEDICAL EXPERT:** As *Medical Experts*, Radiologist integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. *Medical Expert* is the central physician Role in the CanMEDS framework.

**Key and Enabling Competencies: Neurosurgeons are able to...**

<table>
<thead>
<tr>
<th>Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.</strong></td>
</tr>
<tr>
<td><strong>Access and apply relevant information to clinical practice so as to have competence in clinical radiological skills.</strong></td>
</tr>
<tr>
<td><strong>Demonstrate effective consultation services with respect to patient care, education and legal opinions</strong></td>
</tr>
<tr>
<td><strong>Understand the nature of formation of all types of radiological images, including physical and technical aspects, patient positioning, contrast media.</strong></td>
</tr>
<tr>
<td><strong>Knowledge of the theoretical, practical and legal aspects of radiation protection, including other imaging techniques and their possible harmful effects.</strong></td>
</tr>
<tr>
<td><strong>Knowledge of human anatomy at all ages, both conventional and multiplanar, with emphasis on radiological applications.</strong></td>
</tr>
<tr>
<td><strong>Knowledge of all aspects of clinical radiology, including understanding of disease, appropriate application of imaging to patients, importance of informed consent, complications such as contrast media reactions, and factors affecting interpretation and differential diagnosis.</strong></td>
</tr>
<tr>
<td><strong>Understand the fundamentals of quality assurance in radiology.</strong></td>
</tr>
<tr>
<td><strong>Understand the appropriate follow-up care of patients who have received investigations and/or interventional therapy.</strong></td>
</tr>
<tr>
<td>B. COMMUNICATOR - As Communicators, Radiologist effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Establish appropriate therapeutic relationships with patients/families.</td>
</tr>
<tr>
<td>Look effectively.</td>
</tr>
<tr>
<td>Obtain the appropriate information during consultation with referring physicians in order to be able to make recommendations regarding the most appropriate testing and/or management of patients.</td>
</tr>
<tr>
<td>Discuss appropriate information with patients/families and the health care team, and be able to obtain informed consent for tests and procedures when this is needed.</td>
</tr>
<tr>
<td>Understand the importance of communication with referring physicians, including an understanding of when the results of an investigation or procedure should be urgently communicated.</td>
</tr>
<tr>
<td>Communicate effectively with patients and their families and have a compassionate interest in them.</td>
</tr>
</tbody>
</table>

| C. COLLABORATOR - As Collaborators, Radiologists effectively work within a health care team to achieve optimal patient care. |
|---|---|---|---|---|---|
| Consult effectively with other physicians and health care professionals. | Fails to Meet | Meets Expectations | Exceeds | N/A |
| Contribute effectively to other interdisciplinary team activities. | 0 | 1 | 2 | 3 | 4 |
| Have the ability to function as a member of a multi-disciplinary health care team in the optimal practice of radiology. | | | | |

| D. MANAGER - As Managers, Radiologists are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system. |
|---|---|---|---|---|---|
| Utilize resources effectively to balance patient care, learning needs, and other activities. | Fails to Meet | Meets Expectations | Exceeds | N/A |
| Allocate finite health care resources wisely. | 0 | 1 | 2 | 3 | 4 |
| Work effectively and efficiently in a health care organization. | | | | |
| Utilize information technology to optimize patient care, life-long learning and other activities. | | | |

| E. HEALTH ADVOCATE - As Health Advocates, Radiologists responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations. |
|---|---|---|---|---|---|
| Recognize and respond to those issues where advocacy is appropriate. | Fails to Meet | Meets Expectations | Exceeds | N/A |
| Look effectively. | 0 | 1 | 2 | 3 | 4 |
### F. SCHOLAR - As Scholars, Radiologists demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

Develop, implement and monitor a personal continuing education strategy.  
Critically appraise sources of medical information.

### G. PROFESSIONAL - As Professionals, Radiologists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

Deliver highest quality care with integrity, honesty and compassion.  
Exhibit appropriate personal and interpersonal professional behaviours.  
Practice medicine ethically consistent with the obligations of a physician respecting the needs of culture, race and gender.  
Be able to accurately assess one’s own performance, strengths and weaknesses.  
Understand the ethical and medical-legal requirements of radiologists.

### DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical

#### Strengths:

-  
-  

#### Areas for improvement: (If remedial work is recommended - please provide specific suggestions)

-  
-  

#### Comments:

-  
-  

### ORAL EXAMINATION:
<table>
<thead>
<tr>
<th>Incomplete</th>
<th>Meets Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unsatisfactory 1</td>
</tr>
<tr>
<td></td>
<td>Provisional Satisfactory 2</td>
</tr>
<tr>
<td></td>
<td>Satisfactory 3</td>
</tr>
</tbody>
</table>

**OVERALL COMPETENCE:**
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Were educational objectives / performance discussed with the resident:

- **At the beginning of the rotation:** □ Yes □ No
- **At the midpoint of the evaluation:** □ Yes □ No
- **At the end of the rotation:** □ Yes □ No

Was this evaluation completed by:

□ an individual ________________________________

□ a committee ________________________________

Was input obtained from other team members? □ Yes □ No

Evaluator Signature: ___________________________ Date: ___________________________

Resident Signature: ___________________________ Date: ___________________________
1.0 Purpose & Goals Description
To state the policy for the use of Thermoluminescent Dosimeters (TLDs) at Hamilton Health Sciences.

2.0 Policy Statements: HHS Employees
2.1 New staff or students classified as “x-ray workers” are to be issued a TLD on the first day of employment. A visitor badge is issued by the department where the new staff member is employed. The purpose of the visitor TLD is to monitor occupational exposure until the TLDs for that x-ray worker are received.

2.2 All new employees and students requiring TLDs must complete the radiation safety e-learning course and/or attend a teaching session on radiation safety.

2.3 After completing the radiation safety education component, the new staff member or student is required to sign the “X-ray Worker letter” (Appendix 2) which informs them that they are an x-ray worker and as such are subject to the dose limits set out in the Schedule 4 (Appendix 1) of the X-ray Safety Regulation 861.

2.4 A “Radiation Badge (TLD) Request Form” is to be completed as soon as possible (Appendix 3).

2.5 The following areas and personnel are responsible for issuing, exchanging and checking TLDs issued to staff. The responsible person is to document that the TLDs are free from defects and deficiencies when received from the supplier and prior to returning the TLD for reading:
   2.5.1 General Site:
   - Heart Investigation Unit: Senior Medical Radiation Technologist (MRT)
   - Operating Room: Charge Nurse
   - Pain Clinic: Charge Nurse
   - EPS Lab: Charge Nurse
   - Diagnostic Imaging: Clinical Instructor, Diagnostic Imaging

   2.5.2 McMaster Site:
   - All Departments: Clinical Instructor, Diagnostic Imaging

   2.5.3 Juravinski Site:
   - Diagnostic Imaging: Clinical Instructor, Diagnostic Imaging
   - Operating Room: Charge Nurse
   - Surgi-Centre: Charge Nurse
   - Cancer Clinic: Radiation Safety Officer

   2.5.4 Urgent Care Centre
   - Diagnostic Imaging: Designated MRT
2.6 The following information is required for TLDs to be issued:

2.6.1 Surname
First Given Name
Social Insurance Number
Date of Birth
Place of Birth
Job Classification: i.e. Nurse, physician, x-ray tech, student etc.
Male/ female

2.7 All staff classified as "x-ray workers" as defined by the X-ray Safety Regulation 861 must be issued a TLD to be worn under the apron at the waist level. Staff/students working in fluoroscopy areas are to be issued a second TLD to be worn outside the apron at the collar level. TLDs are to be worn at all times when working with ionizing radiation.

2.8 TLDs must be kept on-site to reduce the possibility of erroneous readings. TLDs may be moved between HHS sites for those staff members who require their use at multiple sites.

2.9 A central repository for TLDs is to be located in each department where staff and students are expected to leave their TLDs at the end of their working day. Staff and students are to pick up their TLDs from the same location at the start of their working day. TLDs are to be exchanged each quarter. The most responsible person as defined in section 2.5 is responsible to remove old TLDs from the central repository and replace them with the new TLDs. The following are the locations of the central repositories.

2.9.1 General Site:
Heart Investigation Unit: Control Rooms
Operating Room: OR Entrance
Pain Clinic: Procedure Area storage room
EPS Lab: Control Room
Diagnostic Imaging: Locker Rooms

2.9.2 McMaster Site:
Diagnostic Imaging: Staff lounge
Operating Room: Hallway leading to OR change rooms
Pathology: Locker room

2.9.3 Juravinski Site:
Diagnostic Imaging: Interventional Corridor
Operating Room: Entrance hall to Operating Room

2.9.4 Urgent Care Centre
Diagnostic Imaging

2.10 All X-ray workers MUST wear their TLDs when working with ionizing radiation.

2.11 HHS is to maintain a record of the occupation exposure of x-ray workers for a period of at least three years. The originals of the records are to be kept by the issuing department.
2.12 The Quality Control Officer is to review the reports when received. The Quality Control Officer is to make copies of the reports that are to be sent to the responsible manager with instructions to post the reports for staff to review.

2.13 The Quality Control Officer is to investigate incidents in which a TLD is damaged or a reading cannot be obtained. The Quality Control officer will interview the x-ray worker to determine the nature of their work and any unusual occurrences during the period in which a reading could not be obtained. The Quality Control officer will submit a written report of the details to the site safety coordinator.

2.14 Incidents of quarterly exposure in excess of the limits set out in the Schedule (see Appendix 1) or the X-ray Safety Regulation 861 are to be investigated immediately. These limits are 50 mSv for the body or trunk. A written report of the findings and the corrective action is to be submitted to site safety coordinator for reporting to the MOL and Joint Health and Safety Committee. The Quality Control Officer is responsible to report the incident to the Site Safety Coordinator.

2.15 When an accident or failure of equipment that results in the exposure of a worker in excess of the limits set out in column 3 of the schedule (Appendix 1), the Quality Control Officer is to notify the site safety coordinator for reporting to the Ministry of Labor (MOL) and the Joint Health and Safety Committee. Within 48 hours of the accident or failure a written report must be sent to the site safety coordinator for reporting to the MOL and the Joint Health and Safety Committee.

2.16 In certain circumstances the need for additional extremity or ring dosimeters may be requested.

3.0 Definitions

RPO – Radiation Protection Officer: Physician appointed by the CEO to oversee the safe use and practice of diagnostic imaging equipment, and radiation safety devices.

Thermoluminescent Dosimeter (TLD): Device worn by medical radiation workers to measure occupational radiation exposure

X-ray Worker: a worker who, as a necessary part of the worker's employment may be exposed to x-rays and may receive a dose equivalent in excess of the annual limits set forth in Column 4 of Schedule (Appendix 1) in the Occupational Health and Safety Regulation 861.

4.0 Cross References

DI-X-ray Protective Devices for Staff Use
X-ray Worker letter- Form-Appendix 2
TLD Request Form-Appendix 3

5.0 External References

Safety Code 35

6.0 Developed By

Diagnostic Services Policy and Procedure Committee
7.0 In Consultation With
   Health Safety and Wellness
   Joint Health and Safety Committee
   Diagnostic Imaging Radiation Safety Committee
   Diagnostic Imaging Management

8.0 Approved By
   Director, Diagnostic Imaging

9.0 Posting Dates
   Initial Posting Date: 2006-02-07
   Review/Revision Posting Date:

10.0 Attachments

Appendix 1

SCHEDULE
(Occupational Health and Safety Act-X-Ray Safety Regulation 861)

<table>
<thead>
<tr>
<th>Part of Body Irradiated</th>
<th>Exposure Conditions and Comments</th>
<th>Dose Equivalent Annual Limit (millisieverts)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Column 1</td>
<td>Column 2</td>
</tr>
<tr>
<td>Whole Body or Trunk of Body</td>
<td>Uniform Irradiation</td>
<td>50</td>
</tr>
<tr>
<td>Partial or non-uniform irradiation of body</td>
<td>The limit applies to the EFFECTIVE DOSE EQUIVALENT defined in Note (a)</td>
<td>50</td>
</tr>
<tr>
<td>Lens of eye</td>
<td>Irradiated either alone or with other organs or tissues.</td>
<td>150</td>
</tr>
<tr>
<td>Skin</td>
<td>The limit applies to the mean dose equivalent to the basal cell layer of the epidermis for any area of skin of 1 square centimeter or more.</td>
<td>500</td>
</tr>
<tr>
<td>Individual organs or tissues other than lens of eye or skin.</td>
<td>The limit on effective dose equivalent applies with an overriding limit on the dose equivalent to the individual organ or tissue.</td>
<td>500</td>
</tr>
</tbody>
</table>
Appendix 2

X-ray Worker Letter

Dear ____________________________ (worker name)

As required by the X-Ray Regulations respecting X-Ray Safety made under the Occupational Health and Safety Act (O.Reg 861/90), section 9, I hereby inform you that you are employed as an X-Ray Worker.

Subsection 10 imposes limits as to the radiation exposure that you may receive as part of your employment. They are: that doses are to be kept as low as reasonably achievable, and that in any case, as an x-ray worker you shall not receive a dose equivalent in excess of the annual limits set out below.

<table>
<thead>
<tr>
<th>Part of the Body Irradiated</th>
<th>Exposure Conditions &amp; Comments</th>
<th>Dose Equivalent Annual Limit for X-Ray workers (millisieverts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Body or trunk</td>
<td>Uniform irradiation</td>
<td>50</td>
</tr>
<tr>
<td>Partial or non-uniform</td>
<td>Limit applies to the effective dose equivalent defined in O.Reg 861/90</td>
<td>50</td>
</tr>
<tr>
<td>Irradiation of body</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lens of Eye</td>
<td>Irradiated either alone or with other organs or tissues</td>
<td>150</td>
</tr>
<tr>
<td>Skin</td>
<td>Limit applies to mean dose equivalent to the basal cell layer of the epidermis for any area of skin of 1 square centimetre or more</td>
<td>500</td>
</tr>
<tr>
<td>Individual organ or tissue</td>
<td>Limit on effective dose equivalent applies, with an overriding limit on the dose equivalent to the individual organ or tissue</td>
<td>500</td>
</tr>
</tbody>
</table>

Hamilton Health Sciences shall take every precaution reasonable in the circumstances to ensure that the mean dose equivalent received by the abdomen of a pregnant x-ray worker does not exceed five millisieverts during the pregnancy.

Sincerely,

__________________________
(name of employer or employer’s rep)

dated ______________________

Your signature here indicates that you have read and understood this document and that you have received the original. A copy is to be kept in your employee file/

______________________________(Worker Signature), dated ______________________

P Fuhry 011101 RPS 519/434-2210 Ontario Ministry of Labour
# Appendix 3

## Radiation Badge (TLD) Request Form

Please fill out ALL fields in order for request to be processed

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today’s Date</td>
<td>________________</td>
</tr>
<tr>
<td>Surname</td>
<td>________________</td>
</tr>
<tr>
<td>First Name &amp; Middle Initial</td>
<td>________________</td>
</tr>
<tr>
<td>Date of Birth (mm/dd/yyyy) &amp; Gender</td>
<td>________________</td>
</tr>
<tr>
<td>SIN</td>
<td>________________</td>
</tr>
<tr>
<td>Place of Birth (province in Canada, otherwise only country)</td>
<td>________________</td>
</tr>
<tr>
<td>Job Classification (tech, physician, resident, RN, student etc.)</td>
<td>________________</td>
</tr>
<tr>
<td>Department</td>
<td>________________</td>
</tr>
<tr>
<td>E-mail address &amp; Extension</td>
<td>________________</td>
</tr>
<tr>
<td>End Date (if temporary use of TLDs)</td>
<td>________________</td>
</tr>
<tr>
<td>Signature</td>
<td>________________</td>
</tr>
</tbody>
</table>

I understand that it is my responsibility to ensure the timely return of TLDs to the appropriate person and that I am financially responsible if my TLDs are not returned for exchange quarterly or at the end of my employment at HHS.

Signature: ________________

---

**FOR OFFICE USE ONLY**

Temporary Badges issued on: ________________ Wearer #: ________________

Permanent Badge ordered on: ________________

X-Ray Worker notification letter has been signed:

Signed off by: ________________ Date: ________________

---

| Keyword Assignment | TLD, Quality Control Officer, Radiation Protection Officer, RPO, dosimeter |

END OF DOCUMENT

For internal use only at HHS. Persons reviewing a hard copy of this document should refer to the electronic version posted in the Policy Library to ensure this copy is current.
Diagnostic Radiology

ROTATION SPECIFIC GUIDELINES

In keeping with the specific standards of accreditation (2009) this rotation assumes administrative support and university affiliation with patients.

DEFINITION
Diagnostic Radiology is a branch of medical practice concerned with the use of imaging techniques in the study, diagnosis and treatment of disease.

SPECIFIC OBJECTIVES
At the completion of training, the resident will have acquired the following competencies and will function effectively as a:

Medical expert/clinical decision-maker
General Requirements:
• Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.
• Access and apply relevant information to clinical practice so as to have competence in clinical radiological skills.
• Demonstrate effective consultation services with respect to patient care, education and legal opinions.

Specific Requirements:
• Understand the nature of formation of all types of radiological images, including physical and technical aspects, patient positioning, contrast media.
• Knowledge of the theoretical, practical and legal aspects of radiation protection, including other imaging techniques and their possible harmful effects.
• Knowledge of human anatomy at all ages, both conventional and multiplanar, with emphasis on radiological applications.
• Knowledge of all aspects of clinical radiology, including understanding of disease, appropriate application of imaging to patients, importance of informed consent, complications such as contrast media reactions, and factors affecting interpretation and differential diagnosis.
• Understand the fundamentals of quality assurance in radiology.
• Understand the appropriate follow-up care of patients who have received investigations and/or interventional therapy.

Communicator
General Requirements:
• Establish appropriate therapeutic relationships with patients/families.
• Listen effectively.
• Obtain the appropriate information during consultation with referring physicians in order to be able to make recommendations regarding the most appropriate testing and/or management of patients.
• Discuss appropriate information with patients/families and the health care team, and be able to obtain informed consent for tests and procedures when this is needed.
Specific Requirements:
• Understand the importance of communication with referring physicians, including an understanding of when the results of an investigation or procedure should be urgently communicated.
• Communicate effectively with patients and their families and have a compassionate interest in them.

Collaborator
General Requirements:
• Consult effectively with other physicians and health care professionals.
• Contribute effectively to other interdisciplinary team activities.

Specific Requirements:
• Have the ability to function as a member of a multi-disciplinary health care team in the optimal practice of radiology.

Manager
General Requirements:
• Utilize resources effectively to balance patient care, learning needs, and other activities.
• Allocate finite health care resources wisely.
• Work effectively and efficiently in a health care organization.
• Utilize information technology to optimize patient care, life-long learning and other activities.

Health Advocate
General Requirements:
• Recognize and respond to those issues where advocacy is appropriate.

Specific Requirements:
• Recognize when radiological investigation or treatment would be detrimental to the health of a patient.
• Educate and advise on the use and misuse of radiological imaging.

Scholar
General Requirements:
• Develop, implement and monitor a personal continuing education strategy.
• Critically appraise sources of medical information.

Professional
General Requirements:
• Deliver highest quality care with integrity, honesty and compassion.
• Exhibit appropriate personal and interpersonal professional behaviours.
• Practice medicine ethically consistent with the obligations of a physician respecting the needs of culture, race and gender.

Specific Requirements:
• Be able to accurately assess one’s own performance, strengths and weaknesses.
• Understand the ethical and medical-legal requirements of radiologists.
Neurosurgery - SELCTIVE

ROTATION SPECIFIC GUIDELINES

In keeping with the specific standards of accreditation (2009) this rotation assumes administrative support and university affiliation.

At the completion of the rotation, the resident will have acquired the following competencies and will function effectively as a:

As Medical Experts, Neurosurgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

Key and Enabling Competencies: Vascular Surgeons are able to...

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care

1.1. Perform a neurosurgical consultation, including the presentation of well documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional

2. Demonstrate and maintain clinical knowledge, skills and attitudes appropriate to their practice

2.1.6. Physiology and fundamental principles of neuroanesthesia
2.1.7. Gross and microscopic pathology of neurosurgical conditions
2.1.8. The neurosurgeon must demonstrate a comprehensive knowledge of:
2.1.8.1. Clinical features, including symptoms, signs, natural history, and prognosis of neurosurgical disorders
2.1.8.3. Anatomy and physiology of the nervous system, sense and related functions
2.1.8.3.1. Cerebral cortex, subcortical regions, basal ganglia, thalamus, brain stem, cerebellum and cranial nerves
2.1.8.3.2. Spinal cord
2.1.8.3.3. Spine and skull
2.1.8.3.4. Nerve roots, peripheral nerves and associated muscles
2.1.8.3.5. Neurotransmission (including nerve conduction, the neuromuscular junction, axonal transport, neurotransmitters and neuromodulators, resting membrane potentials, action potentials and synaptic transmission)
2.1.8.3.13. Pain

2.1.8.4. Clinical pharmacology: the indications for, mechanism(s) of action, side effects and dosages of drugs and agents used in neurosurgical therapeutics
3. Perform a complete and appropriate assessment of a neurosurgical patient
3.1. Elicit a history that is relevant, clear, concise and accurate
3.2. Perform a physical examination that is relevant, clear, concise and accurate
3.3. Select medically appropriate investigations
3.4. Demonstrate effective clinical problem solving and judgment in generating differential diagnoses and management plans

5. Demonstrate proficient and appropriate diagnostic and therapeutic procedural Skills

5.1. Select and interpret appropriate general diagnostic tests for the management of neurosurgical patients

5.1.1. Select and interpret tests of clinical electrophysiology including electroencephalography, electrocorticography, evoked potentials, electromyography, and nerve conduction studies
5.1.2. Interpret neuroimaging examinations including plain x-rays, computed tomography, magnetic resonance imaging, angiography, ultrasonography and radionuclide imaging
5.2. Spinal decompression (for congenital, degenerative, neoplastic, traumatic and infectious disease)
5.2.1. Cervical
5.2.1.1. Anterior
5.2.1.2. Posterior
5.2.1.2.1. Laminectomy
5.2.1.2.2. Foramenotomy
5.2.1.3. Thoracic
5.2.1.3.1. Posterior
5.2.1.3.1.1. Laminectomy
5.2.1.3.1.2. Posterolateral decompression
5.2.1.4. Lumbosacral
5.2.1.4.1. Posterior
5.2.1.4.1.1. Discectomy
5.2.1.4.1.2. Laminectomy
5.2.1.4.1.3. Posterolateral decompression
5.2.2. Spinal arthrodesis (for congenital, degenerative, neoplastic, traumatic and infectious disease)
5.2.2.1. Cervical
5.2.2.1.1. Anterior
5.2.2.1.1.1. With and without instrumentation
5.2.2.1.2. Posterior
5.2.2.1.2.1. With instrumentation
5.2.2.1.2.2. Cranial-cervical
5.2.2.1.2.3. Cervical
5.2.2.1.3. Thoracolumbar
5.2.2.1.3.1. Posterior
5.2.2.1.3.1.1. With and without instrumentation
5.2.2.1.4. Lumbar
5.2.2.1.4.1. Posterior
5.2.2.9.1.4.1.1. With and without instrumentation
5.2.2.10. Closed reduction and external immobilization of cervical spinal fractures
5.2.2.11. Resection of intradural extramedullary spinal tumours
5.2.2.12. Peripheral nerve
5.2.2.12.1. Carpal tunnel decompression
5.2.2.12.2. Ulnar nerve decompression and transposition
5.2.2.12.3. Nerve and muscle biopsy
5.2.2.12.4. Sural nerve harvest
5.2.2.12.5. Resection of simple nerve tumours
5.2.2.14. Spinal Dysraphism
5.2.2.14.1. Release of tethered cord

5.3.7. Spinal decompression (for congenital, degenerative, neoplastic, traumatic and infectious disease)
5.3.7.1. Cervical
5.3.7.1.1. Anterior
5.3.7.1.1.1. Transoral
5.3.7.2. Thoracic
5.3.7.2.1. Anterior Transcavitary
5.3.7.2.1.1. Discectomy
5.3.7.2.1.2. Vertebrectomy
5.3.7.3. Lumbosacral
5.3.7.3.1. Anterior
5.3.7.3.1.1. Transabdominal or retroperitoneal
5.3.7.3.1.1.1. Discectomy
5.3.7.3.1.1.2. Vertebrectomy
5.3.8. Spinal reconstruction and arthrodesis (for congenital, degenerative, neoplastic, traumatic and infectious disease)
5.3.8.1. Cervical
5.3.8.1.1. Anterior
5.3.8.1.1.1. Odontoid screw fixation
5.3.8.1.1.2. Multilevel complex reconstruction
5.3.8.1.2. Posterior
5.3.8.1.2.1. C1-2 fixation
5.3.8.1.2.2. Multilevel complex reconstruction
5.3.8.1.2.3. Cervical-thoracic
5.3.8.2. Thoracic
5.3.8.2.1. Posterior
5.3.8.2.1.1. With and without instrumentation
5.3.8.3. Vertebral augmentation
5.3.8.3.1. Vertebroplasty
5.3.8.3.2. Kyphoplasty
5.3.8.4. Laminoplasty
5.3.9. Spinal cord tumours and vascular malformations
5.3.10. Spinal Dysraphism
5.3.10.1. Complex dysraphic conditions
5.3.11. Peripheral nerve
5.3.11.1. Brachial plexus
5.3.11.2. Other nerve entrapments
5.3.11.3. Nerve grafting
5.3.11.4. Complex nerve tumours
5.3.11.5. Sympathectomy
5.4. Ensure that informed consent is obtained and adequate follow-up is arranged for procedures performed

6. Seek appropriate consultation from other health professionals
6.1. Demonstrate insight into their own limitations of expertise
6.2. Demonstrate effective, appropriate, and timely consultation of other health professionals as needed for optimal patient care

**Communicator**

*Definition:*
As *Communicators*, Neurosurgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

*Key and Enabling Competencies: Neurosurgeons are able to...*

1. **Develop rapport, trust, and ethical therapeutic relationships with patients and families**
   1.1. Recognize that being a good communicator is a core clinical skill for Neurosurgeons, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, and improved clinical outcomes
   1.2. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy
   1.3. Respect patient confidentiality, privacy and autonomy
   1.4. Listen effectively
   1.5. Recognize and respond to nonverbal cues
   1.6. Facilitate a structured clinical encounter effectively
   1.7. Use appropriate language and terminology to facilitate understanding and decision making

2. **Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals**
   2.1. Gather information about a disease and about a patient’s beliefs, concerns, expectations and illness experience
   2.2. Seek out and synthesize relevant information from other sources, such as a patient’s family, caregivers and other professionals

3. **Convey relevant information and explanations accurately to patients and families, colleagues and other professionals**
   3.1. Deliver information to a patient and family, colleagues and other professionals in a humane manner and in such a way that it is understandable, encourages discussion and facilitates participation in decision-making

**Collaborator**

*Definition:*
As *Collaborators*, Neurosurgeons effectively work within a health care team to achieve optimal patient care.

*Key and Enabling Competencies: Neurosurgeons are able to...*

2. **Work with other health professionals effectively to prevent and resolve interprofessional conflict**
   2.1. Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
   2.2. Work with other professionals to prevent conflicts
   2.3. Employ collaborative negotiation to resolve conflicts
2.4. Respect differences and address misunderstandings and limitations in other Professionals

**Manager**
**Definition:**
As Managers, Neurosurgeons are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.

**Key and Enabling Competencies: Neurosurgeons are able to...**
1. Participate in activities that contribute to the effectiveness of their health care organizations and systems

1.1. Work collaboratively with others in their organizations
1.2. Participate in systematic quality process evaluation and improvement, such as patient safety initiatives
1.3. Demonstrate a thorough appreciation of the necessity of quality assurance in the delivery of health care
1.4. Describe the structure and function of the health care system as it relates to their specialty, including the role of physicians
1.5. Describe principles of health care financing, including models of physician remuneration, budgeting and organizational funding

**Health Advocate**
**Definition:**
As Health Advocates, Neurosurgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

**Key and Enabling Competencies: Neurosurgeons are able to...**
1. Respond to individual patient health needs and issues as part of patient care

1.1. Identify the health needs of an individual patient
1.2. Identify opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care

**Scholar**
**Definition:**
As Scholars, Neurosurgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

**Key and Enabling Competencies: Neurosurgeons are able to...**
1. Maintain and enhance professional activities through ongoing learning

1.1. Describe the principles of maintenance of competence
1.2. Describe the principles and strategies for implementing a personal knowledge management system
1.3. Recognize and reflect on learning issues in practice
1.4. Conduct a personal practice audit
1.5. Pose an appropriate learning question
1.6. Access and interpret the relevant evidence
1.7. Integrate new learning into practice
1.8. Evaluate the impact of any change in practice
1.9. Document the learning process

**Professional Definition:**
As Professionals, Neurosurgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

**Key and Enabling Competencies: Neurosurgeons are able to...**
1. **Demonstrate a commitment to their patients, profession, and society through ethical practice**
   1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, dedication, compassion, respect and altruism
      1.1.1. Meet deadlines
      1.1.2. Demonstrate punctuality
      1.1.3. Monitor patients
      1.1.4. Provide appropriate follow-up
   1.2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence
   1.3. Recognize and appropriately respond to ethical issues encountered in practice
   1.4. Appropriately manage conflicts of interest
   1.5. Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law
   1.6. Maintain appropriate relations with patients
### CanMEDS Roles / Competencies

<table>
<thead>
<tr>
<th>Name: ________________________</th>
<th>Resident Level: ___</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation Dates: ______________________________</td>
<td></td>
</tr>
<tr>
<td>Attending Staff: ______________________________</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

#### A. MEDICAL EXPERT: As Medical Experts, Neurosurgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

**Key and Enabling Competencies:** Neurosurgeons are able to...

- Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care
- Perform a neurosurgical consultation, including the presentation of well documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional
- Demonstrate and maintain clinical knowledge, skills and attitudes appropriate to their practice
- Physiology and fundamental principles of neuroanesthesia
- Gross and microscopic pathology of neurosurgical conditions
- The neurosurgeon must demonstrate a comprehensive knowledge of:
  - Clinical features, including symptoms, signs, natural history, and prognosis of neurosurgical disorders
  - Anatomy and physiology of the nervous system, sense and related functions
  - Cerebral cortex, subcortical regions, basal ganglia, thalamus, brain stem, cerebellum and cranial nerves
  - Spinal cord
  - Spine and skull
  - Nerve roots, peripheral nerves and associated muscles
  - Neurotransmission (including nerve conduction, the neuromuscular junction, axonal transport, neurotransmitters and neuromodulators, resting membrane potentials, action potentials and synaptic transmission)
  - Pain
  - Clinical pharmacology: the indications for, mechanism(s) of action, side effects and dosages of drugs and agents used in neurosurgical therapeutic
<table>
<thead>
<tr>
<th>Perform a complete and appropriate assessment of a neurosurgical patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elicit a history that is relevant, clear, concise and accurate</td>
</tr>
<tr>
<td>Perform a physical examination that is relevant, clear, concise and accurate</td>
</tr>
<tr>
<td>Select medically appropriate investigations</td>
</tr>
<tr>
<td>Demonstrate effective clinical problem solving and judgment in generating differential diagnoses and management plans</td>
</tr>
</tbody>
</table>

**Demonstrate proficient and appropriate diagnostic and therapeutic procedural skills**

<table>
<thead>
<tr>
<th>Demonstrate effective, appropriate, and timely use of diagnostic procedures relevant to Neurosurgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select and interpret appropriate general diagnostic tests for the management of neurosurgical patients</td>
</tr>
<tr>
<td>Select and interpret tests of clinical electrophysiology including electroencephalography, electrocorticography, evoked potentials, electromyography, and nerve conduction studies</td>
</tr>
<tr>
<td>Interpret neuroimaging examinations including plain x-rays, computed tomography, magnetic resonance imaging, angiography, ultrasonography and radionuclide imaging</td>
</tr>
</tbody>
</table>

**Select and perform appropriate therapeutic procedures in a timely fashion**

<table>
<thead>
<tr>
<th>Spinal decompression (for congenital, degenerative, neoplastic, traumatic and infectious disease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervical</td>
</tr>
<tr>
<td>Anterior</td>
</tr>
<tr>
<td>Disectomony</td>
</tr>
<tr>
<td>Vertebrectomy</td>
</tr>
<tr>
<td>Posterior</td>
</tr>
<tr>
<td>Laminectomy</td>
</tr>
<tr>
<td>Foramenotomy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thoracic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posterior</td>
</tr>
<tr>
<td>Laminectomy</td>
</tr>
<tr>
<td>Posterolateral decompression</td>
</tr>
<tr>
<td>Procedure</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Lumbar</td>
</tr>
<tr>
<td>Posterior</td>
</tr>
<tr>
<td>Disectomy</td>
</tr>
<tr>
<td>Laminectomy</td>
</tr>
<tr>
<td>Posterolateral decompression</td>
</tr>
<tr>
<td>Spinal arthrodesis (for congenital, degenerative, neoplastic, traumatic and infectious disease)</td>
</tr>
<tr>
<td>Cervical</td>
</tr>
<tr>
<td>Anterior</td>
</tr>
<tr>
<td>With and without instrumentation</td>
</tr>
<tr>
<td>Posterior</td>
</tr>
<tr>
<td>With instrumentation</td>
</tr>
<tr>
<td>Cranial-cervical</td>
</tr>
<tr>
<td>Cervical</td>
</tr>
<tr>
<td>Thoracolumbar</td>
</tr>
<tr>
<td>Posterior</td>
</tr>
<tr>
<td>With and without instrumentation</td>
</tr>
<tr>
<td>Lumbar</td>
</tr>
<tr>
<td>Posterior</td>
</tr>
<tr>
<td>With and without instrumentation</td>
</tr>
<tr>
<td>Lumbar</td>
</tr>
<tr>
<td>Posterior</td>
</tr>
<tr>
<td>With and without instrumentation</td>
</tr>
<tr>
<td>Closed reduction and external immobilization of cervical spinal fractures</td>
</tr>
<tr>
<td>Peripheral nerve</td>
</tr>
<tr>
<td>Carpal tunnel decompression</td>
</tr>
<tr>
<td>Ulnar nerve decompression and transposition</td>
</tr>
<tr>
<td>Nerve and muscle biopsy</td>
</tr>
<tr>
<td>Procedure</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Sural nerve harvest</td>
</tr>
<tr>
<td>Resection of simple nerve tumours</td>
</tr>
<tr>
<td><strong>Spinal Dysraphism</strong></td>
</tr>
<tr>
<td>Release of tethered cord</td>
</tr>
<tr>
<td><strong>Describe the following procedural skills, along with the indications for</strong></td>
</tr>
<tr>
<td><strong>the procedures, the nature and purpose of the procedures, and their</strong></td>
</tr>
<tr>
<td><strong>potential complications:</strong></td>
</tr>
<tr>
<td>Spinal decompression (for congenital, degenerative, neoplastic,</td>
</tr>
<tr>
<td>traumatic and infectious disease)</td>
</tr>
<tr>
<td>Cervical</td>
</tr>
<tr>
<td>Anterior</td>
</tr>
<tr>
<td>Tranoral</td>
</tr>
<tr>
<td><strong>Thoracic</strong></td>
</tr>
<tr>
<td>Anterior Transcavitary</td>
</tr>
<tr>
<td>Discectomy</td>
</tr>
<tr>
<td>Vertebrectomy</td>
</tr>
<tr>
<td><strong>Lumbosacral</strong></td>
</tr>
<tr>
<td>Anterior</td>
</tr>
<tr>
<td>Transabdominal or retroperineal</td>
</tr>
<tr>
<td>Discectomy</td>
</tr>
<tr>
<td>Vertebrectomy</td>
</tr>
<tr>
<td>Spinal reconstruction and arthrodesis (for congenital, degenerative,</td>
</tr>
<tr>
<td>neoplastic, traumatic and infectious disease)</td>
</tr>
<tr>
<td>Cervical</td>
</tr>
<tr>
<td>Anterior</td>
</tr>
<tr>
<td>Odontoid screw fixation</td>
</tr>
<tr>
<td>Multilevel complex reconstruction</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Posterior</td>
</tr>
<tr>
<td>C1-2 fixation</td>
</tr>
<tr>
<td>Multilevel complex reconstruction</td>
</tr>
<tr>
<td>Cervical-thoracic</td>
</tr>
<tr>
<td>Thoracic</td>
</tr>
<tr>
<td>Posterior</td>
</tr>
<tr>
<td>With and without instrumentation</td>
</tr>
<tr>
<td>Vertebral augmentation</td>
</tr>
<tr>
<td>Vertebroplasty</td>
</tr>
<tr>
<td>Kyphoplasty</td>
</tr>
<tr>
<td>Laminoplasty</td>
</tr>
<tr>
<td>Spinal cord tumours and vascular malformations</td>
</tr>
<tr>
<td>Spinal Dysraphism</td>
</tr>
<tr>
<td>Complex dysraphic conditions</td>
</tr>
<tr>
<td>Peripheral nerve</td>
</tr>
<tr>
<td>Brachial plexus</td>
</tr>
<tr>
<td>Other nerve entrapments</td>
</tr>
<tr>
<td>Nerve grafting</td>
</tr>
<tr>
<td>Complex nerve tumours</td>
</tr>
<tr>
<td>Sympathectomy</td>
</tr>
</tbody>
</table>

Ensure that informed consent is obtained and adequate follow-up is arranged for procedures performed

Seek appropriate consultation from other health professionals

Demonstrate insight into their own limitations of expertise

Demonstrate effective, appropriate, and timely consultation of other health professionals as needed for optimal patient care
### B. COMMUNICATOR - As Communicators, Neurosurgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

<table>
<thead>
<tr>
<th>Development Area</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
</tr>
<tr>
<td>Develop rapport, trust, and ethical therapeutic relationships with patients and families</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Recognize that being a good communicator is a core clinical skill for Neurosurgeons, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, and improved clinical outcomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect patient confidentiality, privacy and autonomy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listen effectively</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize and respond to nonverbal cues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitate a structured clinical encounter effectively</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use appropriate language and terminology to facilitate understanding and decision making</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gather information about a disease and about a patient’s beliefs, concerns, expectations and illness experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seek out and synthesize relevant information from other sources, such as a patient’s family, caregivers and other professionals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convey relevant information and explanations accurately to patients and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deliver information to a patient and family, colleagues and other professionals in a humane manner and in such a way that it is understandable, encourages discussion and facilitates participation in decision-making</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### C. COLLABORATOR - As Collaborators, Neurosurgeons effectively work within a health care team to achieve optimal patient care

<table>
<thead>
<tr>
<th>Development Area</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
</tr>
<tr>
<td>Work with other health professionals effectively to prevent and resolve interprofessional conflict</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work with other professionals to prevent conflicts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employ collaborative negotiation to resolve conflicts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect differences and address misunderstandings and limitations in other professionals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize one’s own differences, misunderstanding and limitations that may contribute to interprofessional tension</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflect on interprofessional team function</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fails to Meet</td>
<td>Meets Expectations</td>
<td>Exceeds</td>
<td>N/A</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------</td>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**D. MANAGER -** As Managers, Neurosurgeons are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.

- Participate in activities that contribute to the effectiveness of their health care organizations and systems
- Work collaboratively with others in their organizations
- Participate in systematic quality process evaluation and improvement, such as patient safety initiatives
- Demonstrate a thorough appreciation of the necessity of quality assurance in the delivery of health care
- Describe the structure and function of the health care system as it relates to their specialty, including the role of physicians
- Describe principles of health care financing, including models of physician remuneration, budgeting and organizational funding

**E. HEALTH ADVOCATE -** As Health Advocates, Neurosurgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations

- Respond to individual patient health needs and issues as part of patient care
- Identify the health needs of an individual patient
- Identify opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care

**F. SCHOLAR -** As Scholars, Neurosurgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

- Maintain and enhance professional activities through ongoing learning
- Describe the principles of maintenance of competence
- Describe the principles and strategies for implementing a personal knowledge management system
- Evaluate the impact of any change in practice
- Document the learning process
- Recognize and reflect on learning issues in practice
- Conduct a personal practice audit
- Pose an appropriate learning question
- Access and interpret the relevant evidence
- Integrate new learning into practice
### G. PROFESSIONAL

As Professionals, Neurosurgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

<table>
<thead>
<tr>
<th>Fails to Meet</th>
<th>Marginal</th>
<th>Satisfactory Progress</th>
<th>Fully</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

- Demonstrate a commitment to their patients, profession, and society through ethical practice
- Exhibit appropriate professional behaviors in practice, including honesty, integrity, dedication, compassion, respect and altruism
- Meet deadlines
- Demonstrate punctuality
- Monitor patients
- Provide appropriate follow-up
- Demonstrate a commitment to delivering the highest quality care and maintenance of competence
- Recognize and appropriately respond to ethical issues encountered in practice
- Appropriately manage conflicts of interest
- Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law
- Maintain appropriate relations with patients

### DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical

**Strengths:**

- 
- 
- 

**Areas for improvement:** (If remedial work is recommended - please provide specific suggestions)

- 
- 
- 

**Comments:**
**ORAL EXAMINATION:**

<table>
<thead>
<tr>
<th></th>
<th>Incomplete</th>
<th>0</th>
<th>Meets Expectations</th>
<th>1</th>
<th>Provisional Satisfactory</th>
<th>2</th>
<th>Satisfactory</th>
<th>3</th>
</tr>
</thead>
</table>

**OVERALL COMPETENCE:**
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Were educational objectives / performance discussed with the resident:

- At the beginning of the rotation: □ Yes □ No
- At the midpoint of the evaluation: □ Yes □ No
- At the end of the rotation: □ Yes □ No

Was this evaluation completed by:

- □ an individual ________________________________
- □ a committee ________________________________

Was input obtained from other team members? □ Yes □ No

Evaluator Signature: ___________________________ Date: ___________________________

Resident Signature: __________ Date: ___________________________
Rotation Specific Objectives

Trauma

The following document is intended to guide you in some of the specific knowledge and skills you should develop on this rotation. This document is intended to augment but not replace the “Objectives of Training and Specialty Training Requirements in Orthopedic Surgery” and the “Specific Standards of Accreditation for Residency Programs in Orthopedic Surgery”. A copy of these documents is supplied in your residency handbook and is also available on the Royal College website.

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation.

It is understood that a residency in Orthopaedics is a continuum. Senior residents will be able to meet the same objectives as junior residents as well as the senior objectives.

1. MEDICAL EXPERT
   - Cognitive & Diagnostic
     - Junior Resident
       - Polytrauma patient
       - Initial ATLS management
       - Prioritization of injuries in trauma patients
       - The principles of open fracture management
       - Recognition of dysvascular limb and compartment syndrome
       - Understand the importance of pelvic fractures
       - Demonstrate knowledge of the concepts of “damage control orthopedics” vs. “early total care”
       - Isolated limb trauma
       - Principles of the management of:
         - Fractures, dislocations and fracture dislocation with appropriate splintage
         - Intraarticular fracture management
         - Associated soft tissue injury
         - Compartment syndrome
         - Dysvascular limb
         - Acute infection
         - Malunion, nonunion, late infection
         - Segmental bone loss
       - An understanding of associated conditions
         - Adult respiratory distress syndrome
         - DVT
         - Fat and pulmonary embolism
         - Multiple organ system failure
• Chronic regional pain syndrome
• Awareness and recognition of:
  o non-accidental trauma
  o issues related to geriatric fractures
  o pathologic fractures

  o Senior Resident
    ▪ In addition to the junior objectives, a senior resident will be expected to integrate detailed knowledge as demonstrated by an ability to formulate a comprehensive treatment plan for the traumatized patient.
    ▪ Insufficiency fractures

• Technical
  o Junior Resident
    ▪ Initial management of fractures and dislocations with appropriate reduction and splinting
    ▪ Develop competencies as a surgical assistant, knowledge of the surgical approaches, handling soft tissues and appropriate wound closures.
    ▪ Proficiency in the use of orthopaedic equipment, and power instruments used in the management of the trauma patient.
    ▪ Technical skills involved in ATLS protocol
    ▪ Operative management of simple fractures – ankle, wrist, hip
    ▪ Management of compartment syndrome and acute infection

  o Senior Resident
    ▪ Should be competent in basic techniques of fracture fixation and soft tissue management including open fractures.
    ▪ Develop competence in basic surgical procedures of the traumatic patient including operative management of single limb trauma and polytraumatic injuries including:
      ▪ Intramedullary nailing of long bone fractures,
      ▪ Open reduction and internal fixation of diaphyseal, metaphyseal and articular fractures using standard AO techniques
      ▪ Techniques of external fixation for certain injuries including: intra-articular fractures with poor soft-tissues (knee and ankle joints), pelvic fractures, distal radius fractures, knee dislocations.
      ▪ Open reduction of irreducible joint dislocations
      ▪ Planning and surgical management of malunion, nonunion and chronic infection

2. COMMUNICATOR
  o Junior Resident
    ▪ Demonstrate skills in working with patients and families who present with communication challenges such as anger, confusion, and issues related to
gender, ethnicity, cultural and religious background. This would also involve communication with those with traumatic brain injury and critical injuries.

- Deliver information including options of care, possible complications and long term prognosis in a humane and understandable way. The resident should encourage discussion and participation in developing a treatment plan. This will lead to obtaining informed consent.
- Demonstrate skill in communicating with other members of the trauma team and other health care personnel involved in the care of the traumatized patients.
- Communicate effectively with appropriate consultants and synthesize their input into the care plan.
- Clearly document the patient encounter including trauma records, progress notes, operative notes and discharge summaries.
- The ability to obtain an appropriate informed consent for patients undergoing interventions.

**Senior Resident**
- Will demonstrate the ability to deliver bad news in a humane and compassionate manner.
- Will be able to verbally present the findings and care plan for the patient.

### 3. COLLABORATOR

**Junior Resident**
- Understand the importance of the multidisciplinary trauma team and describe their roles.
- Effectively work as a member of the trauma team both acutely and in the long term management of the trauma patient.
- Learn to resolve interpersonal conflict.

**Senior Resident**
- Understand community resources available to aid in the management of trauma patients and communicate effectively with those individuals or groups.

### 4. MANAGER

**Junior Resident**
- Understand the importance of allocation of resources for the trauma patient and prioritize care.
- Understand provincial trauma programs.

**Senior Resident**
- Set priorities and manage time to balance patient care, educational activities and personal life.
- Understand health care funding as it relates to trauma care and the principle of cost-appropriate care.
5. HEALTH ADVOCATE
   o Junior Resident
     ▪ Understand the life style issues and different work place environments that lead to an increased risk of trauma
     ▪ Describe the appropriate provincial legislation relating to decreasing trauma risk
   o Senior Resident
     ▪ Describe a plan to decrease the risk of trauma in their community
     ▪ Advocate for the health of their community to include seat belt legislation, use of helmets for high risk sports and the treatment and prevention of osteoporosis.

6. SCHOLAR
   o Junior Resident
     ▪ The resident will pose a learning question and do an appropriate literature search, they will then interpret this evidence and suggest a change in practice if necessary
     ▪ Present an effective lecture or presentation
   o Senior Resident
     ▪ Understand the principles of Continuing Professional Development
     ▪ Understand critical appraisal and demonstrate the ability to critically review an appropriate article in the trauma literature
     ▪ Demonstrate effective teaching techniques

7. PROFESSIONAL
   o Junior Resident
     ▪ Describe informed consent and alternative consent givers
     ▪ Maintain patient confidentiality and describe the limits as defined by professional practice standards and the law
   o Senior Resident
     ▪ Manage any conflict of interest that arises
     ▪ Understand and demonstrate the importance of balancing personal and professional priorities to ensure personal health and sustainable practice.
### A. Medical Expert: As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient centered care. Medical Expert is the central physician Role in the CanMEDS framework.

#### 1. Cognitive and Diagnostic - Senior Resident

<table>
<thead>
<tr>
<th>Number</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In addition to the junior objectives, a senior resident will be expected to integrate detailed knowledge as demonstrated by an ability to formulate a comprehensive treatment plan for the traumatized patient</td>
</tr>
<tr>
<td>2</td>
<td>Insufficiency fractures</td>
</tr>
<tr>
<td>3</td>
<td>Deliver information including options of care, possible complications and long-term prognosis in a humane and understandable way. The resident should encourage discussion and participation in developing a treatment plan. This will lead to obtaining informed consent</td>
</tr>
<tr>
<td>4</td>
<td>Demonstrate skill in communicating with other members of the trauma team and other health care personnel involved in the care of the traumatized patient</td>
</tr>
<tr>
<td>5</td>
<td>Communicate effectively with appropriate consultants and synthesize their input into the care plan</td>
</tr>
<tr>
<td>6</td>
<td>Clearly document the patient encounter including trauma records, progress notes, operative notes and discharge summaries</td>
</tr>
<tr>
<td>7</td>
<td>The ability to obtain an appropriate informed consent for patients undergoing interventions</td>
</tr>
</tbody>
</table>

#### Technical:

<table>
<thead>
<tr>
<th>Number</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Initial management of fractures and dislocations with appropriate reduction and splinting</td>
</tr>
<tr>
<td>2</td>
<td>Develop competencies as a surgical assistant, knowledge of the surgical approaches, handling soft tissues and appropriate wound closures</td>
</tr>
<tr>
<td>3</td>
<td>Proficiency in the use of orthopaedic equipment, and power instruments used in the management of the trauma patient</td>
</tr>
<tr>
<td>4</td>
<td>Technical skills involved in ATLS protocol</td>
</tr>
<tr>
<td>5</td>
<td>Operative management of simple fractures – ankle, wrist, hip</td>
</tr>
<tr>
<td>6</td>
<td>Should be competent in basic techniques of fracture fixation and soft tissue management including open fractures</td>
</tr>
<tr>
<td>7</td>
<td>Management of compartment syndrome and acute infection</td>
</tr>
</tbody>
</table>

Develop competence in basic surgical procedures of the traumatic patient including operative management of single limb trauma and polytraumatic injuries including:
Intramedullary nailing of long bone fractures

Open reduction and internal fixation of diaphyseal, metaphyseal and articular fractures using standard AO techniques

Techniques of external fixation for certain injuries including: intra-articular fractures with poor soft-tissues (knee and ankle joints), pelvic fractures, distal radius fractures, knee dislocations.

Open reduction of irreducible joint dislocations

Planning and surgical management of malunion, nonunion and chronic infection

<table>
<thead>
<tr>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

B. COMMUNICATOR - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. Will demonstrate the ability to deliver bad news in a humane and compassionate manner
2. Will be able to verbally present the findings and care plan for the patient

C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1. Understand community resources available to aid in the management of trauma patients and communicate effectively with those individuals or groups

D. MANAGER - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. Set priorities and manage time to balance patient care, educational activities and personal life
2. Understand health care funding as it relates to trauma care and the principle of cost-appropriate care

E. HEALTH ADVOCATE - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

1. Describe a plan to decrease the risk of trauma in their community
2. Advocate for the health of their community to include seat belt legislation, use of helmets for high risk sports and the treatment and prevention of osteoporosis

F. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. Understand the principles of Continuing Professional Development
2. Understand critical appraisal and demonstrate the ability to critically review an appropriate article in the trauma literature
3. Demonstrate effective teaching techniques

G. PROFESSIONAL - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high persona standards of behaviour.

1. Manage any conflict of interest that arises
2. Understand and demonstrate the importance of balancing personal and professional priorities to ensure personal health
DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical.

1 Strengths:

2 Areas for improvement: (If remedial work is recommended - please provide specific suggestions)

3 Comments:

ORAL EXAMINATION:

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incomplete</td>
</tr>
</tbody>
</table>

OVERALL COMPETENCE:

Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Were educational objectives / performance discussed with the resident:

At the beginning of the rotation: □ Yes □ No

At the midpoint of the evaluation: □ Yes □ No

At the end of the rotation: □ Yes □ No

Was this evaluation completed by: □ an individual

□ a committee

Was input obtained from other team members? □ Yes □ No
## CanMEDS Roles / Competencies

<table>
<thead>
<tr>
<th>To be completed by __________________________</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>On this form, you will be evaluating ____________</td>
<td>Fails to Meet</td>
</tr>
<tr>
<td>For dates: ______________ to _________________</td>
<td>Marginal</td>
</tr>
</tbody>
</table>

### A. MEDICAL EXPERT: A. MEDICAL EXPERT

As Medical Experts, Orthopaedic Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

#### 1. Cognitive and Diagnostic - Junior Resident

1. Polytrauma patients
   - Initial ATLS management
   - Prioritization of injuries in trauma patients
2. The principles of open fracture management
3. Recognition of dysvascular limb and compartment syndrome
4. Understand the importance of pelvic fractures
5. Demonstrate knowledge of the concepts of "damage control orthopaedics" vs "early total care"
6. Isolated limb trauma
7. Principles of the management of:
   - Fractures, dislocations and fracture dislocation with appropriate splintage
   - Intraarticular fracture management
   - Associated soft tissue injury
   - Compartment syndrome
   - Dysvascular limb
   - Acute infection
   - Malunion, nonunion, late infection
   - Segemental bone loss
8. An understanding of associated conditions:
   - Adult respiratory distress syndrome
   - DVT
   - Fat and pulmonary embolism
   - Multiple organ system failure
   - Chronic regional pain syndrome
   - Awareness and recognition of
   - non-accidental trauma
   - issues related to geriatric fractures
   - pathologic fractures

### B. COMMUNICATOR - As Communicators

As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. Will demonstrate the ability to deliver bad news in a humane and compassionate manner
2. Will be able to verbally present the findings and care plan for the patient

### C. COLLABORATOR - As Collaborators

As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care.

1. Understand the importance of the multidisciplinary trauma team and describe their roles
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Effectively work as a member of the trauma team both acutely and in the long term management of the trauma patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Learn to resolve interpersonal conflict</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### D. MANAGER - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

1. Understand the importance of allocation of resources for the trauma patient and prioritize care
2. Understand provincial trauma programs

### E. HEALTH ADVOCATE - As Health Advocates, Orthopaedic Surgeons responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations

1. Understand the lifestyle issues and different workplace environments that lead to an increased risk of trauma
2. Describe the appropriate provincial legislation relating to decreasing trauma risk

### F. SCHOLAR - As Scholars, Orthopaedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

1. The resident will pose a learning question and do an appropriate literature search, they will then interpret this evidence and suggest a change in practice if necessary
2. Present an effective lecture or presentation

### G. PROFESSIONAL - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

1. Describe informed consent and alternative consent givers
2. Maintain patient confidentiality and describe the limits as defined by professional practice standards and law
3. The ability to obtain an appropriate informed consent for patients undergoing interventions

### DESCRIPTIVE RESPONSES

*For any items scored 0 or 1, specific comments are critical.*

1. **Strengths:**

2. **Areas for improvement:** (If remedial work is recommended - please provide specific suggestions)

3. **Comments:**

**ORAL EXAMINATION:**
<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incomplete</td>
</tr>
<tr>
<td><strong>OVERALL COMPETENCE:</strong></td>
<td></td>
</tr>
<tr>
<td>Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.</td>
<td></td>
</tr>
</tbody>
</table>

**Were educational objectives / performance discussed with the resident:**

- At the beginning of the rotation: ☐ Yes  ☐ No
- At the midpoint of the evaluation: ☐ Yes  ☐ No
- At the end of the rotation:  ☐ Yes  ☐ No

**Was this evaluation completed by:**  ☐ an individual  

☐ a committee  

**Was input obtained from other team members?**  ☐ Yes  ☐ No
Intensive Care Unit

Junior Orthopaedic Resident rotating

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fail s to Meet</td>
</tr>
<tr>
<td>Name: ______________________</td>
<td></td>
</tr>
<tr>
<td>Resident Level: ___</td>
<td>0</td>
</tr>
<tr>
<td>Rotation Dates: ______________</td>
<td></td>
</tr>
<tr>
<td>Attending Staff: ______________</td>
<td></td>
</tr>
</tbody>
</table>

A. Medical Expert
Listed below are the Intensive Care Unit specific objectives for Orthopaedic Surgery residents. It should be noted that not all objectives will be met on this rotation. Further learning takes place during related rotations, seminars and independent studies.

Manage common problems experienced by the Intensive Care Unit patient:

1. Respiratory Disease
   - respiratory failure
   - airway management
   - mechanical ventilation & weaning
   - arterial blood gas interpretation
2. Cardiovascular Disease
   - acute myocardial infarction
   - hypertensive emergencies
   - shock (cardiac, hypovolemic and septic)
   - cardiopulmonary resuscitation
   - hemodynamic monitoring (insertion of catheters and interpretation of results)
   - vasoactive medications
   - arrhythmias and pacemaker management
3. Neurological Disease
   - cerebrovascular accident
   - delirium
   - coma
   - increased intracranial pressure
   - seizures
   - central nervous system infections
   - sedation and analgesia
   - brain death & withdrawal of life support

4. Renal / Metabolic Disease
   - acute and chronic renal failure
   - dialysis indications / complications
   - electrolyte disturbances
   - acid / base disturbances
   - endocrine emergencies
5. Gastrointestinal Disease
   - acute upper and lower gastrointestinal bleeding
   - acute abdominal pain
   - enteral and parenteral nutrition
   - hepatic failure
6. Hematologic Disease
   - bleeding diatheses
   - transfusion therapy
   - infectious diseases
   - fever in the ICU
   - infection in the immuno-compromised host
   - nosocomial infection
7. Other
   - post-operative management
   - trauma
   - intoxication
   - technical skills
   - communication
   - critical appraisal
   - ethics
   - teaching ability
   - resource allocation

Competently perform the following procedures:

- Arterial Catheter Cannulation
- Central Venous Catheter
- Swan Ganz Catheter
- Endotracheal intubation
<table>
<thead>
<tr>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**History Taking**

- Performs a focused, accurate and complete history
- Performs a focused, accurate and complete physical exam
- Knows test characteristics of common physical exam signs

**Utilization of Laboratory and Other Investigations**

- Can justify investigations ordered
- Can interpret clinical information and integrate it appropriately
- Able to retrieve and use information regarding test characteristics of common tests

**Problem Solving and Clinic Judgment**

- Good knowledge base
- Able to synthesize clinical information and formulate patient problem list
- Able to incorporate newly learned information in subsequent assessment of patients
- Can organize and prioritize tasks in taking care of acute life-threatening situations
- Demonstrates a systematic and organized approach to clinical problem solving

**Implementing a Management Plan**

- Able to assess and start initial management in acute emergency
- Writes orders that are clear, comprehensive and correct
- Be familiar with the types and doses of drugs used in the ICU
- Can suggest management plans for single and multi system organ failure
- Monitors therapy appropriately
<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>Marginal 1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfactory Progress 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fully 3</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

Displayed proficiency in the following technical skills:

- Arterial Catheter
- Central Venous Catheter
- Swan-Ganz Catheter
- Endotracheal Intubation

B. COMMUNICATOR - The resident will demonstrate the ability to establish a therapeutic relationship with the patient and family. This includes the ability to obtain and share pertinent information with the patient and the health care team.

Establish appropriate therapeutic relationships with patients/families.

Listen effectively.

Obtain the appropriate information during consultation with referring physicians in order to be able to make recommendations regarding the most appropriate testing and/or management of patients.

Discuss appropriate information with patients/families and the health care team, and be able to obtain informed consent for tests and procedures when this is needed.

Understand the importance of communication with referring physicians, including an understanding of when the results of an investigation or procedure should be urgently communicated.

Communicate effectively with patients and their families and have a compassionate interest in them.

C. COLLABORATOR - The resident will demonstrate the ability to work effectively in a team environment by contributing to interdisciplinary patient care activities and by consulting effectively with other physicians.

Consult effectively with other physicians and health care professionals.

Contribute effectively to other interdisciplinary team activities.

Have the ability to function as a member of a multi-disciplinary health care team in the optimal practice of radiology.

D. MANAGER - The resident will utilize health care resources effectively to balance patient care, learning needs and outside activities.

The resident will be able to utilize information technology to optimize patient care and life-long learning.

Utilize resources effectively to balance patient care, learning needs, and other activities.

Allocate finite health care resources wisely.
<table>
<thead>
<tr>
<th>Description</th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th>Exceeds</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
</tr>
<tr>
<td>Work effectively and efficiently in a health care organization.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilize information technology to optimize patient care, life-long learning and other activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. HEALTH ADVOCATE - The resident will identify the important determinants of health affecting patients.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize and respond to those issues where advocacy is appropriate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. SCHOLAR - As Scholars, Radiologists demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop, implement and monitor a personal continuing education strategy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critically appraise sources of medical information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. PROFESSIONAL - As Professionals, Radiologists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deliver highest quality care with integrity, honesty and compassion.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhibit appropriate personal and interpersonal professional behaviours.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice medicine ethically consistent with the obligations of a physician respecting the needs of culture, race and gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Be able to accurately assess one's own performance, strengths and weaknesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the ethical and medical-legal requirements of radiologists.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DESCRIPTIVE RESPONSES**

*For any items scored 0 or 1, specific comments are critical*

**Strengths:**

- 

- 

**Areas for improvement:** (If remedial work is recommended - please provide specific suggestions)

- 

- 

**Comments:**
<table>
<thead>
<tr>
<th></th>
<th>Incomplete</th>
<th>Meets Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Provisional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfactory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfactory</td>
</tr>
</tbody>
</table>

**OVERALL COMPETENCE:**
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

**Were educational objectives / performance discussed with the resident:**

- At the beginning of the rotation: ☐ Yes  ☐ No
- At the midpoint of the evaluation: ☐ Yes  ☐ No
- At the end of the rotation:  ☐ Yes  ☐ No

**Was this evaluation completed by:**

☒ an individual
☐ a committee

**Was input obtained from other team members?** ☐ Yes  ☐ No

**Evaluator Signature:** ___________________________  Date: ___________________________

**Resident Signature:** ___________________________  Date: ___________________________

### CanMEDS Roles / Competencies

| Name: ______________________ | Resident Level: ___ |
| Rotation Dates: ______________________________ | |
| Attending Staff: ______________________________ | |

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fails to Meet</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

**A. MEDICAL EXPERT:** As Medical Experts, Anesthesiologists integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

At the completion of the rotation, the resident will have acquired the following competencies and will function effectively as a Medical Expert/Clinical Decision-maker

- Perform a physiatric consultation effectively
- Demonstrate an understanding of the basic principles of Physical Medicine & Rehabilitation including: the concepts of impairment, activity limitation, participation restriction and the role of the interdisciplinary team
- Demonstrate an understanding of basic sciences relevant to Physical Medicine & Rehabilitation (including but not restricted to: anatomy, physiology, kinesiology and ergonomics) and the application of basic science principles to clinical care
- Demonstrate effective consultation services with respect to patient care, education and medical-legal opinions
- Demonstrate ability to effectively and appropriately prioritize professional duties both as part of day to day practice and when managing emergent conditions
- Demonstrate compassionate and patient-centered care
- Demonstrate medical expertise in situations other than patient care by providing expert legal testimony and advising governments or third-parties on the issues such as, but not limited to, impairment, activity limitations, participation restriction and the role of the interdisciplinary team

  - Demonstrate knowledge of clinical features, diagnostic criteria, epidemiology, natural history, pathophysiology, complications and functional consequences of clinical presentations including, but not limited to:

  - Amputations
  - Arthridities
Complications of immobility

Disability due to complex medical conditions

Diseases of nerve and muscle

Disorders of the spinal cord

Musculoskeletal injuries and pain syndromes

Describe normal growth and development, including developmental milestones

Describe the aging process and its effects on physiology and biomechanics

Demonstrate a respect and appreciation for the impact that any impairment, activity limitation and/or participation restriction may have on any patient and their family

Demonstrate an understanding of the effect of mental health and psychosocial issues contributing to activity limitation and/or participation restriction

Elicit a relevant, concise, and accurate history that identifies and explores issues addressed in a patient encounter for the purposes of prevention and health promotion, diagnosis and or management

Perform a relevant, focused and accurate physical examination with a special emphasis on the assessment of the neuromusculoskeletal system and functional abilities

Demonstrate and assess gait patterns, transfer techniques, use and need of mobility aids, and wheelchair seating

Select medically appropriate investigative methods in a resource-effective and ethical manner

   Describe the indications for and the interpretation and/or application of diagnostic tests including, but not limited to:

   Appropriate blood work and other fluid analysis

   Nerve conduction studies and electromyography

   Diagnostic imaging studies

   Interventional diagnostic procedures for pain

   Demonstrate effective clinical problem solving and judgment to address neuromusculoskeletal disorders, including interpreting available data and integrating information to generate differential diagnoses and management plans

   Implement an effective management plan in collaboration with a patient and their family

   Demonstrate effective, appropriate, and timely application of preventive and therapeutic interventions relevant to a physiatric practice including:
<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet</th>
<th>Meets Expectations</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>Marginal</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Mobility aids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orthoses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostheses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise prescriptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical modality prescriptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitation therapies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmacotherapies: oral, injectable and topical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe the use of interventional therapeutic procedures for pain including, but not limited to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epidural injections</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrathecal drug delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medial branch blocks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percutaneous high frequency neurotomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep brain and spinal stimulators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroablative procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide a multi-disciplinary approach when dealing with end-of-life-issues by delivering appropriate, timely and ethical care (including issues related to the living will, DNR status, power of attorney, competency, pain control, nutrition issues, functional independence)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate effective, appropriate, and timely performance of the following diagnostic and therapeutic procedures:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthrocentesis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intra-articular injections</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft tissue injections</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superficial surgical debridement of wounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fails to Meet</td>
<td>Meets Expectations</td>
<td>Exceeds</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>--------------</td>
<td>---------------------</td>
<td>---------</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Marginal</td>
<td>Satisfactory Progress</td>
<td>Fully</td>
<td>4</td>
</tr>
<tr>
<td>B. COMMUNICATOR - As Communicators, effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.</td>
<td>Establish a professional relationship with patients &amp; families.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Obtain and collate relevant history from patients, &amp; families.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discuss appropriate information with patients and families and other members of the health care team.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrate consideration and compassion in communicating with patients and families.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide accurate information appropriate to the clinical situation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communicate effectively with medical colleagues, nurses, and paramedical personnel in inpatient, outpatient, and operating room environments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrate appropriate oral &amp; written communication skills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. COLLABORATOR - As Collaborators, effectively work within a health care team to achieve optimal patient care</td>
<td>Consult effectively with other physicians and health care professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contribute effectively to other interdisciplinary team activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrate ability to function in the clinical environment using the full abilities of all team members.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. MANAGER - As Managers, are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.</td>
<td>Utilize personal resources effectively in order to balance patient care, continuing education, and personal activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allocate finite health care resources wisely</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Work effectively and efficiently in a health care organization.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recognize and discuss the impact of health care economics on patients and their families, residents, medical staff and other health professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. HEALTH ADVOCATE - As Health Advocates, responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations</td>
<td>Identify the important determinants of health affecting patients.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contribute effectively to improved health of patients and communities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recognize and respond to those issues where advocacy is appropriate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
F. SCHOLAR - As Scholars, demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

Develop, implement, and monitor a personal continuing education strategy.

G. PROFESSIONAL - As Professionals, are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

Deliver highest quality care with integrity, honesty and compassion.

Exhibit appropriate personal and interpersonal professional behaviours.

Practice medicine ethically consistent with the obligations of a physician respecting the needs of culture, race and gender.

Periodically review his/her own personal and professional performance against national standards.

Include the patient in discussions concerning appropriate diagnostic and management procedures.

Respect the opinions of fellow consultants and referring physicians in the management of patient problems and be willing to provide means whereby differences of opinion can be discussed and resolved.

Show recognition of limits of personal skill and knowledge by appropriately consulting other physicians and paramedical personnel when caring for the patient.

Establish a pattern of continuing development of personal clinical skills and knowledge through medical education.

DESCRIPTIVE RESPONSES

For any items scored 0 or 1, specific comments are critical

Strengths:

- 

- 

Areas for improvement: (If remedial work is recommended - please provide specific suggestions)

- 

- 

Comments:
**ORAL EXAMINATION:**

<table>
<thead>
<tr>
<th>Incomplete</th>
<th>Meets Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unsatisfactory</th>
<th>Provisional Satisfactory</th>
<th>Satisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**OVERALL COMPETENCE:**
Possesses knowledge, skills, and attitudes appropriate to level of training. Inspires confidence in patients and staff.

Were educational objectives / performance discussed with the resident:

- At the beginning of the rotation:  ☐ Yes  ☐ No
- At the midpoint of the evaluation:  ☐ Yes  ☐ No
- At the end of the rotation:  ☐ Yes  ☐ No

Was this evaluation completed by:

☐ an individual

☐ a committee

Was input obtained from other team members?  ☐ Yes  ☐ No

Evaluator Signature: ___________________________  Date: ___________________________

Resident Signature: ___________________________  Date: ___________________________
The 25% Rule while on an Orthopaedics rotation

Time off

It was agreed by our Residency Program Committee (October 2013) that a resident should not miss more than 25% of the rotation. (Approximately 5V days per 1 block rotation) while completing an Orthopaedic rotation. In the case of OR shut down, the 25% rule would be based on available time. Residents who miss more than this time, will be evaluated as incomplete.

Concerns were expressed over the amount of time residents were spending in the OR during their rotations and the in depth evaluations CTU Directors are expected to complete.

Policy of the PGME office states


Incomplete “Incomplete” indicates that the Clinical Supervisor has been unable to properly and fully evaluate the Student because the Student’s time spent on the rotation was insufficient, for whatever reason, e.g. illness, extenuating circumstances etc. As the rotation is incomplete, time will have to be made up to fulfill the requirements of the rotation.
Resident eDossier Overview

Your eDossier (or electronic dossier) is an electronic folder of important information about you and your experiences as a resident. It is the interface through which you access the one45 system (e.g., to complete evaluations, to view your schedule, to check your marks, to download handouts and notes). By storing all your information in one place, the eDossier streamlines the administrative process and reduces the risk of transmission errors.

Most of the information in your eDossier can only be edited by Katie Niblock (niblock@mcmaster.ca).

Your eDossier consists of a number of subfolders:

**To Do**

The **To Do** subfolder consists of the list of tasks that you have to complete. It is the subfolder that appears when you log into the system. The most common tasks that you will perform here are attending and rotation evaluations and reviewing evaluations of yourself.

When an administrator sends you an evaluation form to complete or distribute, the form automatically appears as a new task in your To Do list (usually, you also receive a sendout email with each new task). To complete a task, click on its *title* and follow the instructions. Once you've finished a task it is removed from your To Do subfolder.
**Personal Info**

The **Personal Info** subfolder contains your contact information, a headshot photo of you, and your current PGY level. It is very important that this information is kept up to date. To change any of your contact information, please contact your administrator.

This subfolder is also where you can change your username and password. To do this, click the **change username/password** link. A new page appears where you can update this information.

**Contact List**

The Contact List contains email addresses for all the residents in your program.

**Handouts & Links**

The Handouts & Links subfolder contains links to the handouts and notes associated with your program, sites and specific rotations that you are scheduled for. A few examples of learning objects are rotation objectives, reading lists,
maps, websites and journal articles. You can click on the links to download personal copies or to visit specific websites (this option is also available in the Schedule subfolder).

Marks/Grades

The Grades subfolder is where you can view the results of your examinations as they are released by the coordinator. Here you will find the following marks:

- Bi-yearly Oral Exams
- CAGS Exam
- Research Quiz (PGY 1&2 only)

Evaluations

The Evaluations subfolder is an archive of the evaluations you have completed (By Me) as well as the evaluations of your performance (Of Me). The archive includes the evaluations that have been requested but that have not yet been completed.

You can view the results of your performance evaluations. However, many of these results will not be released to you until you've completed the corresponding evaluations (i.e., of your attending and of the rotation itself). If the name of an evaluator is underlined, you can click on it to view the results.
Schedules

My Calendar

The My Calendar subfolder allows you to view your courses and academic sessions (daily events). When you click on this tab you will be able to select a specific timeframe to view the events by selecting day, week, or month on the top right hand corner. Once you have made your selection you will be able to see the events scheduled for the timeframe in the calendar below. To view the specifics of an event you must click on the event name and a box will open which displays the information such as the topic, date, speaker, and location of the item. On the top left hand corner of the page you can choose to print the calendar or export it to another calendar system that you regularly use such as GroupWise or Outlook.

Rotations

The Rotations subfolder consists of your rotation schedule and your academic session schedule. Your rotations are listed in chronological order. If you have leave time scheduled during a rotation it appears under the Vacation/Leave column. Similarly, handouts (e.g., rotation objectives, reading lists) associated with specific rotations appear under the Handouts column. You can view or download them by clicking on their titles.

Duty Hours

The Duty Hours subfolder allows you to track the shifts you work each day.
To record your shifts for a specific day first click on that **day** in the calendar view at the top of the screen. The bottom of the screen will switch to the view for that week, based on a Monday to Sunday timeframe.

To enter the shift times, click on the **dropdown list** for the specific day and choose the type of shift you worked. After this selection is made add in the start and end times of the shift in military time. You can also add in a note, which will be viewable by your program administrator.

To add more shifts in a particular day, click on the (+) sign beside the date. This will open another set of shift times for you to enter. Once you have finished entering in all of your shifts you must save the information by clicking **confirm hours** on the lower right hand side of the page.

Colored dots will appear in the calendar at the top of the page to indicate that the data entry was successful.

The Vacation/Leave subfolder shows a summary of your scheduled leave time. Leave time is categorized by the reason for the leave (i.e., vacation, conference, interview, sick). The last category (other) is reserved for special circumstances (e.g., bereavement). To schedule leave time, you must submit a request via the RTO-Request for Time Off system on your medportal home page. Once your request has been approved by all parties Paulette Aubry will receive an email with your dates/information. She will then enter your dates into One45 so that the program is aware when you are off and all dates will show on the schedule. It is IMPORTANT to notify Paulette of all dates you are not at work.
Academic Sessions

Track Attendance

The Track Attendance subfolder allows you to enter your attendance for academic half day sessions, journal clubs and grand rounds that have occurred in the past. The schedule sorts the academic sessions by calendar months. A coloured dot appears on the day an event is scheduled. If you click on the dot, the event name, topic, presenter and location are listed and you are able to access any handouts associated with the event. Beneath the details you are able to mark your attendance.
# Team Based Groupings

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Burrow</td>
<td>Petrisor</td>
<td>Peterson</td>
<td>Denkers</td>
</tr>
<tr>
<td>Missuina</td>
<td>Williams</td>
<td>Ogilvie</td>
<td></td>
</tr>
<tr>
<td>Peterson</td>
<td>Denkers</td>
<td>Mah</td>
<td></td>
</tr>
<tr>
<td>Mah</td>
<td>Ristevski</td>
<td>Ayeni</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bednar</td>
<td>Deheshi</td>
<td>Moro</td>
<td>Rajaratnam</td>
<td>Dunlop</td>
</tr>
<tr>
<td>Drew</td>
<td>Ghert</td>
<td>Ristevski</td>
<td></td>
<td>Porte</td>
</tr>
<tr>
<td>Kwok</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Foot and Ankle A – SJH</th>
<th>Foot and Ankle B – HGH</th>
<th>Arthroplasty A – JHCC</th>
<th>Arthroplasty B – JHCC</th>
<th>Arthroplasty C - JHCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saunders</td>
<td>Petrisor</td>
<td>DeBeer</td>
<td>Smith</td>
<td>Adili</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Punthakee</td>
<td>Sadler</td>
<td>Lachowski</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wismer</td>
<td>Winemaker</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Avram</td>
<td>Williams</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rajaratnam</td>
<td></td>
</tr>
</tbody>
</table>
# Common Rotation Schedule
## 2013-2014

Based on a 4 – week long education block  
**Total - 13 Rotations**

<table>
<thead>
<tr>
<th>Block</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Monday, July 1, 2013</td>
<td>Monday, July 29, 2013</td>
</tr>
<tr>
<td>2</td>
<td>Tuesday, July 30, 2013</td>
<td>Monday August 26, 2013</td>
</tr>
<tr>
<td>3</td>
<td>Tuesday, August 27, 2013</td>
<td>Monday, September 23, 2013</td>
</tr>
<tr>
<td>4</td>
<td>Tuesday, September 24, 2013</td>
<td>Monday, October 21, 2013</td>
</tr>
<tr>
<td>5</td>
<td>Tuesday, October 22, 2013</td>
<td>Monday, November 18, 2013</td>
</tr>
<tr>
<td>6</td>
<td>Tuesday, November 19, 2013</td>
<td>Monday, December 16, 2013</td>
</tr>
<tr>
<td>7</td>
<td>Tuesday, December 17, 2013</td>
<td>Monday January 13, 2014</td>
</tr>
<tr>
<td>8</td>
<td>Tuesday, January 14, 2014</td>
<td>Monday, February 10, 2014</td>
</tr>
<tr>
<td>9</td>
<td>Tuesday, February 11, 2014</td>
<td>Monday, March 10, 2014</td>
</tr>
<tr>
<td>10</td>
<td>Tuesday, March 11, 2014</td>
<td>Monday, April 7, 2014</td>
</tr>
<tr>
<td>11</td>
<td>Tuesday, April 8, 2014</td>
<td>Monday, May 5, 2014</td>
</tr>
<tr>
<td>12</td>
<td>Tuesday, May 6, 2014</td>
<td>Monday, June 2, 2014</td>
</tr>
<tr>
<td>13</td>
<td>Tuesday, June 3, 2014</td>
<td>Monday, June 30, 2014</td>
</tr>
</tbody>
</table>
Chuang Tzu Story - Duke Hwan and the Wheelwright

Duke Hwan of Khi, first in his dynasty,
sat under his canopy reading his philosophy.
And Phien the wheelwright was out in the yard
making a wheel.

Phien laid aside hammer and chisel,  
climbed the steps  
and said to duke Hwan,  
“May I ask you, Lord,  
what is this you are reading?”

Said the duke: “The experts, the authorities.”
Phien asked: “Alive or dead?”
The duke said: “Dead, a long time.”
“Then,” said the wheelwright,
“you are only reading the dirt they left behind.”

The duke replied, “What do you know about it?  
You are only a wheelwright.  
You had better give me a good explanation  
or else you must die.”

The wheelwright said, “Let us look at the affair from my point of view.
When I make wheels, if I go easy they fall apart,  
and if I am too rough they don’t fit.  
But if I am neither too easy nor too violent  
they come out right,  
and the work is what I want it to be.  

“You cannot put this in words,  
you just have to know how it is.  
I cannot even tell my own son exactly how it is done,  
and my own son cannot learn it from me.  
So here I am, seventy years old, still making wheels!

The men of old took all they really knew  
with them to the grave.  
And so, Lord, what you are reading there  
is only the dirt they left behind them.”
## Monthly Evaluations

**Orthopaedic Surgery Residents**

**RESIDENT RESPONSIBILITY:** To be completed with staff supervisor at the end of every month

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Name:</th>
<th>PGY:</th>
<th>STAFF/TEAM:</th>
</tr>
</thead>
</table>

Resident Signature: _______________________________________

Staff Supervisor: _______________________________________

Please send to Candice Stroud at stroudc@mcmaster.ca

HGH 8N 06
1. **HISTORY AND CLINICAL EXAMINATION SKILLS:**

<table>
<thead>
<tr>
<th></th>
<th>0 Fails To Meet</th>
<th>1 Meets Expectations – Marginal</th>
<th>2 Meets Expectations – Satisfactory Progress</th>
<th>3 Meets Expectations – Fully</th>
<th>4 Exceeds</th>
<th>NA</th>
</tr>
</thead>
</table>

**SUPERVISOR COMMENTS/SUGGESTIONS FOR IMPROVEMENT**

2. **SURGICAL PLANNING SKILLS (INCLUDING SURGICAL PLAN, POSITIONING AND DRAPING)**

**NAME PROCEDURE(s):**

<table>
<thead>
<tr>
<th></th>
<th>0 Fails To Meet</th>
<th>1 Meets Expectations – Marginal</th>
<th>2 Meets Expectations – Satisfactory Progress</th>
<th>3 Meets Expectations – Fully</th>
<th>4 Exceeds</th>
<th>NA</th>
</tr>
</thead>
</table>

**SUPERVISOR COMMENTS/SUGGESTIONS FOR IMPROVEMENT**

3. **INTRAOPERATIVE SURGICAL SKILLS**

**NAME OF PROCEDURE(s):**

<table>
<thead>
<tr>
<th></th>
<th>0 Fails To Meet</th>
<th>1 Meets Expectations – Marginal</th>
<th>2 Meets Expectations – Satisfactory Progress</th>
<th>3 Meets Expectations – Fully</th>
<th>4 Exceeds</th>
<th>NA</th>
</tr>
</thead>
</table>

**SUPERVISOR COMMENTS/SUGGESTIONS FOR IMPROVEMENT**

4. **COMMUNICATOR: CONSULT NOTE**

**NAME OF CLINIC (IE. FRACTURE, SARCOMA)**

<table>
<thead>
<tr>
<th></th>
<th>0 Fails To Meet</th>
<th>1 Meets Expectations – Marginal</th>
<th>2 Meets Expectations – Satisfactory Progress</th>
<th>3 Meets Expectations – Fully</th>
<th>4 Exceeds</th>
<th>NA</th>
</tr>
</thead>
</table>

**SUPERVISOR COMMENTS/SUGGESTIONS FOR IMPROVEMENT**

5. **COMMUNICATOR: SURGICAL DICTATION**

**NAME OF PROCEDURE(s):**

<table>
<thead>
<tr>
<th></th>
<th>0 Fails To Meet</th>
<th>1 Meets Expectations – Marginal</th>
<th>2 Meets Expectations – Satisfactory Progress</th>
<th>3 Meets Expectations – Fully</th>
<th>4 Exceeds</th>
<th>NA</th>
</tr>
</thead>
</table>

**SUPERVISOR COMMENTS/SUGGESTIONS FOR IMPROVEMENT**

6. **MANAGER/ COLLABORATOR**

**TEACHING OF JUNIOR RESIDENTS AND STUDENTS:**

**NAME OF JUNIOR/STUDENT**

<table>
<thead>
<tr>
<th></th>
<th>0 Fails To Meet</th>
<th>1 Meets Expectations – Marginal</th>
<th>2 Meets Expectations – Satisfactory Progress</th>
<th>3 Meets Expectations – Fully</th>
<th>4 Exceeds</th>
<th>NA</th>
</tr>
</thead>
</table>

**SUPERVISOR COMMENTS/SUGGESTIONS FOR IMPROVEMENT**

7. **FEEDBACK FROM ANCILLARY STAFF IF APPLICABLE:**

<table>
<thead>
<tr>
<th></th>
<th>0 Fails To Meet</th>
<th>1 Meets Expectations – Marginal</th>
<th>2 Meets Expectations – Satisfactory Progress</th>
<th>3 Meets Expectations – Fully</th>
<th>4 Exceeds</th>
<th>NA</th>
</tr>
</thead>
</table>

**SUPERVISOR COMMENTS/SUGGESTIONS FOR IMPROVEMENT**

T:\ResidencyProgramCoordinators\workingdocs\Ortho\Evaluations\Mid and End of Rotation Requirements.docx
* you must provide comments when choosing this rating

<table>
<thead>
<tr>
<th>OVERALL COMPETENCE</th>
<th>Below Average</th>
<th>Satisfactory</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1*</td>
<td>2*</td>
<td>3</td>
</tr>
</tbody>
</table>

CanMEDS Roles / Competencies

Expectations

To be completed by __________________________
On this form, you will be evaluating __________________
For dates: _____________ to _________________

A. MEDICAL EXPERT - As Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. **Medical Expert** is the central physician Role in the CanMEDS framework

1. Demonstrated sound, appropriate and broad knowledge of Orthopaedic Surgery in area of expertise
2. Demonstrated good clinical acumen and substantiated decisions with evidence and/or acknowledged limitations of evidence
3. Discussed pertinent aspects of evidence-based Orthopaedics
4. Identified important elements in surgical decision-making

B. COMMUNICATOR - As Communicators, Orthopaedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

1. Displayed sensitive, caring, respectful attitude towards patients/families
2. Clear explanations given to patients/families regarding diagnosis and surgical plan
3. Responds to questions effectively
4. Consistently communicates to trainees the surgical plan, intra-operative decisions and post-operative debriefing
5. Consistently performs the surgical safety checklist

C. COLLABORATOR - As Collaborators, Orthopaedic Surgeons effectively work within a healthcare team to achieve optimal patient care

1. Careful use of consultants; clear questions generally specified
2. Respectful and responsive to concerns of other Health Care Professionals; facilitated their involvement
3 Provides an effective role model of team interaction

| D. MANAGER - As Managers, Orthopaedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system. |
|---|---|---|---|---|
| Balanced service responsibilities and teaching functions effectively | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Considered health care resources when planning patient management | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Displays good organisational skills allowing for efficient and educational delivery of patient care | 1* | 2* | 3 | 4 | 5 | 6 | 7* |

| E. HEALTH ADVOCATE - As Health Advocates, physicians responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations. |
|---|---|---|---|---|
| Demonstrated advocacy for patients in the clinical setting | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Advocate for effective health interventions and policies eg. cessation of smoking if applicable | 1* | 2* | 3 | 4 | 5 | 6 | 7* |

| F. EDUCATOR |
|---|---|---|---|---|
| Provides effective educational discussions and demonstrations for the trainee | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Allows trainee to accept appropriate responsibility while providing adequate support | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Provides helpful feedback in a constructive manner and in a timely fashion | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Considered educational needs of all levels of house staff | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Provided guidance for technical procedures, with focus on salient features of informed consent | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Teaches the principles of Evidence Based Orthopaedics | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Role models the principles of Evidence Based Orthopaedics | 1* | 2* | 3 | 4 | 5 | 6 | 7* |

| G. SCHOLAR - As Scholars, Orthopedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge |
|---|---|---|---|---|
| Shows evidence of continuing medical education | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Discussed literature retrieval, methodology of papers, application to individual procedure | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Role-model for continued life-long learning | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
| Exhibits intellectual honesty | 1* | 2* | 3 | 4 | 5 | 6 | 7* |
H. PROFESSIONAL - As Professionals, Orthopaedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

<table>
<thead>
<tr>
<th></th>
<th>Below Average</th>
<th>Satisfactory</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1* 2*</td>
<td>3 4</td>
<td>5 6 7*</td>
</tr>
</tbody>
</table>

1  Punctual

2  Made trainees secure with back-up and availability

3  Showed respect for trainees and decisions with proper attention to resident autonomy

4  Responsive to trainee concerns and ready to change immediately with no defensiveness

5  Showed consistent awareness of ethical issues of confidentiality, informed consent, and patient autonomy in decision-making

6  Understands and respects cultural differences and gender-specific issues

* you must provide comments when choosing this rating

Were educational objectives / performance discussed:

At the beginning of the rotation: □ Yes □ No
At the midpoint of the evaluation: □ Yes □ No
At the end of the rotation: □ Yes □ No
**Resident Well Being**

[http://postgrad.medportal.ca/wellness.aspx](http://postgrad.medportal.ca/wellness.aspx)

**Resident Wellness Support System** – The System Support booklet has been put together by the PGME Office as a quick reference of the various support mechanisms available to residents. In addition to the resources mentioned in this booklet, each of the programs have their own support structures in place. Please be sure to check with your program director regarding program specific support features that are offered and available to you.

<table>
<thead>
<tr>
<th><strong>Family Doctor</strong></th>
<th>All residents are encouraged to have a local Family Physician</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The PGME Office has a confidential list of family physicians that are willing to accept residents as patients. Please contact, <strong>Brenda Montesanto</strong>.</td>
</tr>
<tr>
<td></td>
<td>The <a href="http://www.hamilton-academy.org">Hamilton Academy of Medicine</a> has a current listing of family physicians who are accepting new patients</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Help Now</strong> Immediate Crisis Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physicians Health Program</strong> (OMA) Toll-Free Line: 1–800–851–6606 (Monday – Friday 9–5pm) A confidential service providing assistance on issues such as stress, burnout, mental health and substance use to physicians and their families. Offering expedited referral to third party providers with expertise in physician health</td>
</tr>
<tr>
<td><strong>Distress Centre of Hamilton</strong> 24 Hour Crisis Line: 905–525–8611</td>
</tr>
<tr>
<td><strong>Suicide Prevention</strong></td>
</tr>
<tr>
<td><a href="http://www.centre-suicide-prevention.ca">Centre for Suicide Prevention</a></td>
</tr>
<tr>
<td><a href="http://www.suicideprevention.ca">Suicide Prevention Services</a> , Salvation Army Suicide Prevention Services</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>McMaster Resources</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Worker</strong> Valerie Spironello, MSW RSW, Assistant Professor Department of Family Medicine specializes in life work balance and wellness. She is trained to recognize and address compassion fatigue in those in the caring profession. In her private practice, “Choose Wellness” she uses a mindfulness approach to assist others in improving wellness in body, mind and spirit. For more information please refer to her website: <a href="http://www.choosewellness.ca">www.choosewellness.ca</a> You may contact Ms Spironello at 905–730–0754 <a href="mailto:valerie@choosewellness.ca">valerie@choosewellness.ca</a> Visits are covered under the Resident Benefit Plan as per the PAIRO Agreement. Visits are confidential. To promote resident wellness, the PGME Office will pay for the initial visit.</td>
</tr>
<tr>
<td><strong>Regional Campus Supports</strong> Dr. Mountjoy and Dr. Swayze are resources for the residents who are based at the Waterloo Regional Campus and Niagara Regional Campus respectively. They will be able to assist and direct you in finding the appropriate supports to help you throughout your residency.</td>
</tr>
<tr>
<td>Dr. Margo Mountjoy, Resident Wellness Director, Waterloo Regional Campus Family Physician, Rockwood, Ontario and Sports Medicine Physician, Health and Performance Centre, University of Guelph Email: <a href="mailto:mountjm@mcmaster.ca">mountjm@mcmaster.ca</a> or Phone: 519–885–5426, extension 21122 or 1–226–971–2940</td>
</tr>
</tbody>
</table>
## Intimidation & Harassment

**Dr. Kathy Swayze**, Resident Wellness Director, Niagara Regional Campus Family Physician, McMaster Niagara Family Health Centre and Medical Director, Ridley College, St. Catharines. Email: Swayze@mcmaster.ca or Phone: 905–397–1908, ext 43862 or 905–984–3335

- **Intimidation & Harassment –** [Break the Cycle Booklet](#)

**Robin Edwards**, FHS Advisor, Professionalism, FHS, HSC –3E09, 905–525–9140, ext. 22417. Contact R. Edwards if you think you are being harassed or intimidated.

**Human Rights & Equity Services**, Confidential advice on the options available if you have a question or concern that may involve harassment based on race, gender, religion, sexual orientation, disability or other human–rights related concerns

## EAP

**Human Solutions**, Employee & Family Assistance Program

## General Well Being, Personal Safety & Supports

- **Communicable Diseases & Occupational Health Policy & Procedures for Preventing Transmission of Blood Borne Pathogens**
- **Security Services**
- **Student Accessibility Services (SAS)**
- **SWHAT, Student Walk Home Attendant Team**
- **Stress – Guided Relaxation CD**, Diaphragmatic Breathing, Progressive Muscle Relaxation, & more
- **Workplace Hazardous Materials Information System**, [more](#)

**Get Connected.** Consider the following in broadening your experience or seeking additional support:

- Gay Lesbian, Bisexual, Transgender & Queer, Aboriginal Groups.

## Other Tools & Resources

### Career Counseling & Employment

- **HealthForceOntario**, career planning service **2012 Job Fair – Oct 2 McMaster D Braley Athletic Centre**
- **COMPASS, Career-planning tips, tools & links for Ontario Residents**
- **Medical Employers.com**, Canadian Healthcare Employment Network

### CanMEDS Physician Health Guide

- **CanMEDS Physician Health Guide** – Practical Handbook for Physician Health and Well-being

### Financial Planning

- **MD Management Limited**
  - Geoff Vieira, CFP, Financial Consultant, 905–526–8999 or 1–800–883–6015, etc. 229
  - In Kitchener/Waterloo contact Kristine Greenfield, 1–800–461–9587

### Fitness & Nutrition

- **Goodlife Fitness** discounts via PAIRO
- **EatRight Ontario**, Eating on the Run,

### General Well Being, Resources & Education

- **CAIR Resident Well Being E-Library** repository of documents about CAIR & resident issues.
- **CMA Centre for Physician Health & Well Being** is a centre of excellence providing leadership, education & research aiming to keep Canadian physicians healthy.
- **CMA Guide to Physician Health & Well Being, Facts, advice and resources for Canadian doctors**
- **Communicable Diseases & Occupational Health Policy**
- **ePhysicianHealth.com**, first comprehensive, online physician health & wellness resource designed to help physicians and physicians in training be resilient in their professional and personal lives.
- **eWorkplaceHealth.com** details the many factors that shape workplace health.
| Medico-Legal | **Federation of Medical Women of Canada**, Committed to the development of women physicians & the well-being of all women.  
**MD Health e-Coach**, Self administered questionnaire to determine & improve your personal emotional & physical health. Also assists in designing & monitoring your commitment to change.  
PAIRO – Resident Well Being Day is held annually & features topics related to residents and includes . See Medportal "Key Dates" for details.  
**CMPA**  
"What to do when facing a College complaint", from CMPA Perspective, September 2010 |
|---|---|
| Mental Health & Addiction | **Homewood Health Centre** is a leader in mental health & addiction treatment, providing specialized psychiatric services.  
**Physician Health Program**, OMA |
| Sexual Abuse | **Maintaining Appropriate Boundaries & Preventing Sexual Abuse**, CPSO |
I. Preamble ............................................................................................................. Page 2

II. Scope ............................................................................................................. Page 2

III. Definitions ..................................................................................................... Page 3

IV. Domains of Professional Behaviour........................................................... Page 3

V. Principles ........................................................................................................ Page 3

VI. Guidelines for Assessing Professionalism .................................................... Page 4

   Exemplary Behaviour ...................................................................................... Page 4
   Minor Breach ................................................................................................... Page 4
   Significant Breach .......................................................................................... Page 4
   Egregious Behaviour ....................................................................................... Page 4

VII. Reporting of Professional Behaviour .......................................................... Page 4

   Exemplary Behaviour ...................................................................................... Page 4
   Behaviour Inconsistent with PIP .................................................................... Page 5

VIII. Review / Monitoring by Program................................................................. Page 5

IX. Categories of Behaviour Inconsistent with PIP

   Minor Breach ................................................................................................... Page 6
   Significant Breach .......................................................................................... Page 7
   Egregious Behaviour ....................................................................................... Page 7

X. Remediation Plan ............................................................................................ Page 7

XI. Appeal ............................................................................................................ Page 8

XII References ...................................................................................................... Page 9

XIII Appendices

   Appendix A: Professionalism in Practice .......................................................... Page 9 - 11
   Appendix B – Suggested Elements for Documentation by Program Director .... Page 12
   Appendix C: Flowchart of Process for Managing Incidents Inconsistent With
                 Professional Behaviour ............................................................................. Page 13
Preamble

The Faculty of Health Sciences at McMaster University has identified as its mission statement "Together, Advancing Health Through Learning and Discovery". Within a culture of innovation, courage and collaboration, the Faculty of Health Sciences at McMaster will lead by challenging what is and embracing what could be.

In 2005, the Faculty of Health Sciences adopted a guiding statement of purpose for the Faculty of Health Science, namely, “In Health Sciences Education Research and Practice we are here to question, to learn, to discover and to communicate”.

As current and future members of the caring professions, health science learners at McMaster shall demonstrate their commitment to the professional behaviours that are outlined in this document. These professional behaviours exemplify the six tenets of the Faculty of Health Sciences guiding vision, namely: inter-professional collaboration, commitment to our communities, accountability/responsibility, excellence, integrity and respect, and optimism. As such, health science students at McMaster are held to a standard beyond the basic conduct expected of other students at McMaster University.

All learners at McMaster are required to adhere to the McMaster University “Student Code of Conduct” for non-academic offences, as revised May 1, 2009. Procedures for handling allegations, complaints or charges are set out in that document. Additionally, breaches of academic integrity including academic dishonesty, cheating and plagiarism are defined in the McMaster University “Academic Integrity Policy”, most recent approval September 1, 2008. As with non-academic offences, procedures for handling allegations, complaints or charges are set out in that document.

Scope of the Code

All Faculty of Health Science’s learners shall demonstrate these professional behaviours in all academic and clinical settings at all times. For the purposes of this Code, Faculty of Health Sciences students shall be governed by this policy whether they are engaged in purely academic or academic/clinical activities, whether they are engaged in administrative functions associated with their learning, whether they are conducting or assisting in research, and whether the activities be on or off site, in real time or in a virtual reality online. Furthermore, the Faculty of Health Sciences Code of Conduct for Students and learners shall be applicable to all contexts and circumstances in which learners were, or could reasonably be, considered to be representing their educational program in either a real-world or on-line setting.

The “tenets” articulated in this Code do not replace nor limit the legal or ethical standards established by the professional and regulatory bodies, or by any other applicable University standard, policy or procedure.
Should a student engage in a behaviour or set of behaviours that constitutes a simultaneous violation of both the Master University Student Code of Conduct and the Faculty of Health Sciences Code of Conduct For Students and Learners, the breach shall properly be addressed under the former in the first instance; however, the Faculty of Health Sciences reserves the right to proceed secondarily in applying the procedures of the Faculty of Health Sciences Code of Conduct For Students and Learners should it reasonably decide it appropriate to do so in the circumstances.

Domains of Professional Behaviour

Guided by the tenets of the Faculty of Health Sciences and a review of the published literature assessing professional behaviour, an Inter-professional Task Force of the Faculty of Health Sciences has identified three priority domains of Professional Behaviour. For each of these domains, explanatory examples are provided; these examples may not be interpreted as defining, describing or limiting the domains themselves, but are held out merely as instructive aids. For further explanation of these domains, learners and faculty are referred to more detailed lists of expected professional behavior published by each of the Health Science Educational Programs.

Domain 1: Professional Responsibility, Integrity and Accountability

Professional responsibility, integrity and accountability will be demonstrated by the learner who fulfills responsibilities reliably and promptly; engages in ethical practice; represents information accurately and accepts responsibility for one’s actions; respects confidentiality and student privileges and advocates for the patient/client and profession rather than promoting self-interest.

Domain 2: Self-improvement and Pursuit of Excellence

Self-improvement and the pursuit of excellence will be demonstrated by the learner who recognizes and acknowledges one’s own limitations or difficulties; who responds reasonably and responsibly to feedback, is motivated to self-improvement; seeks the means to correct deficiencies or weaknesses; and whom adapts to changing circumstances with the goal of achieving excellence.

Domain 3: Respectful Professional Relationships and Communication

Respectful, professional relationships and communication will be demonstrated by the learner who uses respectful language; recognizes appropriate professional boundaries, is sensitive to the values, attitudes and assumptions of other cultures and how these effect practice; remains open to exploring the personal impact of self on others; listens attentively to the concerns of others; and demonstrates empathy and compassion.
If a Breach Occurs and it is Reported

**Academic and Clinical Setting.** The Health Science Professional Education Programs currently evaluate professional behaviour of learners in the academic and clinical setting. Breaches of the Faculty of Health Sciences Code of Conduct for Students and Learners will be deemed to occur when the student has not met the expected professional behaviours within the three domains as defined by their respective professional programs. Learners are expected to have acquired a strong understanding of the expectations of their respective program.

**Outside of the Academic and Clinical Setting.** The Faculty of Health Science regards breaches of professional behaviour outside of the academic and clinical environment as a serious academic matter. Such breaches of conduct include behaviours that violate these standards, whether or not a learner knew or ought to have known that a breach would occur as a result of their actions, and those behaviours that were breached through the negligence of a learner.

Breaches should be reported in writing to the administrative heads of the relevant program (either the Assistant Dean or the Program Administrator). It is expected that faculty will apply their own professional discretion in determining a whether a breach has occurred and importantly, whether the seriousness of the breach requires that it be dealt with by the application of this policy. That is to say, that it is accepted that some minor breaches may be better dealt with informally, outside of this policy and at the discretion of the involved Faculty. It is further acknowledged however, that while a single ‘minor breach’ may be dealt with outside of this policy, it is also acknowledged that a series of minor breaches similar in character, time, or context may be considered as a “single” breach and thus must necessarily fall under the jurisdiction of this policy.

In the case of a breach having been reported, the Program Assistant Dean or Program Administrator shall contact both the complainant and the respondent to a complaint separately and confidentially, investigate the allegation, including providing each party with the fair and equitable opportunity of sharing their perspective of the event or events that had transpired.

Where the Program Assistant Dean or Program Administrator determines, based on the evidence provided, that a breach has occurred, the Health Science Program-specific committees for evaluation and/or discipline of the offending party shall be convened within thirty (30) calendar days to determine what remedy or remediation shall be required of the offending party.

**Sanctions**

A sanction, where appropriate, shall be administered under this Code to ensure a student’s future compliance or conformity with the Faculty of Health Sciences Code of Conduct For Students and Learners. It is acknowledged that all sanctions shall reflect the faculty’s primary commitment to remediation in the first instance.

Consequences for breaching the Faculty of Health Sciences Code of Conduct For Students and Learners are at the discretion of each of the Health Science Professional Programs.
and may include but not be limited to the sanctions described in the McMaster University “Student Code of Conduct” (approved March 11, 2009, effective May 2, 2009).

**Appeals**

Any student who receives a sanction, academic or otherwise in relation to the decision made around a determined breach of the Faculty of Health Sciences Code of Conduct for Students and Learners is entitled to fair and equitable process. Learners who have been found to be in violation of this code may seek remedy by written application within 30 business days from the date of their receipt of the written notification outlining that they have been held to have been in breach of this policy. With written permission from the Program Assistant Dean, and at his or her sole discretion, mediation with the Advisor on Professionalism may be provided to the learner as an option for alternative resolution. Such mediation would only be with respect to determining remediation for the breach, not with respect to whether a breach has occurred.

Should mediation not be offered or not sought by the learner prior to a formal Appeal being initiated, then for all learners (aside from postgraduate medical learners), a formal appeal is to be made in accordance with the McMaster Student Appeal Procedures (approved by Senate, March 11, 2009, effective September 1, 2009) and will be governed in accordance with such policy. Postgraduate medical learners shall avail themselves of the appeal process outlined in the document “Postgraduate Medical Education Policy and Procedures for the Evaluation of Postgraduate Student Performance”.

HSEC February 23, 2011
PROMOTING PROFESSIONALISM IN POSTGRADUATE MEDICAL EDUCATION

POLICY AND PROCEDURES

I  Preamble

Professionalism is an essential set of attitudes and behaviours expected of physicians through all stages of their career. As members of a self-regulated profession, physicians are entrusted to maintain professional accountability to themselves, patients, families, colleagues and their profession. The required attitudes and behaviours of professionalism are derived from multiple CanMEDs competencies, as indicated in the Professionalism in Practice (PIP) document (Appendix A) illustrating the complex and multi-faceted nature of professionalism, which is reflected in this policy.

The importance of demonstrated proficiency in Professionalism among physicians is supported by both our provincial regulatory body, the College of Physicians and Surgeons of Ontario (CPSO); and the national accreditation authorities – the Royal College of Physicians and Surgeons of Canada (RCPSC) and the College of Family Physicians of Canada (CFPC). (See references.) All postgraduate learners are subject to the requirements of the aforementioned regulatory and accreditation bodies, in addition to those outlined in this policy. Should Learners engage in a behavior or set of behaviours that violate the policy and procedures outlined under this policy and / or any other Postgraduate Medical Education policy, and the Faculty of Health Sciences Professional Behaviour Code of Conduct for Learners simultaneously, the breach shall properly be addressed under this policy in the first instance. However, at the discretion of the Assistant Dean, Postgraduate Medical Education, the election may be made to proceed secondarily in also applying the procedures of the Faculty of Health Sciences Professional Behaviour Code of Conduct for Learners should s/he reasonably decide it appropriate to do so in the circumstances.

II  Scope

This policy applies to all postgraduate learners registered with the Postgraduate Medical Education Office. Professional behavior is expected in all clinical and academic settings and roles, including, but not limited to: clinical, administrative, research, both in clinical / university sites and off-site, as well as real or on-line environments. (Refer to Guidelines for appropriate use of the Internet, Electronic Networking and Other Media) This policy shall be applicable to all contexts and circumstances in which postgraduate learners are, or could reasonably be considered to be, representing the profession, their educational program and / or McMaster University.

Each program will specify how this policy will be applied to its evaluation-related hierarchy, including in any Distributed Medical Education sites. For example, evaluation information that would normally go directly to the Program Director in Hamilton may instead go to a DME site lead. However, the Program Director is ultimately responsible for ensuring that monitoring of a Learner’s progress is being completed as per the program’s organizational structure.

It is recognized that the structure of training programs vary from program to program; the relevant committee, for the purposes of this document, may be the Residency Program Committee or a subcommittee of the RPC. It will vary for fellowship programs.
III Definitions:

Postgraduate Learner – Resident, Clinical Fellow, Research Fellow – referred to as the ‘Learner’.

Program Director – the individual who is the officer responsible for the overall conduct of the residency program, reporting to the Assistant Dean of Postgraduate Medical Education for the Faculty. If the incident is with a Clinical or Research Fellow the “Program Director” would be his / her Supervisor or Department Chair, or whoever is deemed most appropriate.

Lead Educator (LE) – the individual who is most directly responsible for the postgraduate learner’s performance in the educational component where the learning is taking place e.g.: clinical supervisor; seminar coordinator; speaker or organizer at academic half day; senior residents with program-defined educational supervisory responsibilities.

Residency Program Committee (RPC) – Residency Program Committee (RPC) that oversees postgraduate education for the specialty; may be a subcommittee of the RPC. It is recognized that the program structure may vary for fellowship training.

IV Domains of Professional Behaviour

An outline of the key subdomains, the CanMEDs roles they reflect, and a description of behaviours consistent with professional practice is documented in the Undergraduate and Postgraduate Professionalism in Practice (PIP) Document (See Appendix A).

All postgraduate medical learners at McMaster University are expected to conduct themselves in a manner consistent with Professionalism in Practice (PIP) and strive for exemplary behavior within the three domains of Professional Behaviour:

1. Professional Responsibility / Integrity
2. Pursuit of Excellence / Insight
3. Personal Interactions – Learning and Clinical Environments

V Principles

1. To promote and recognize exemplary behaviour in Professionalism for postgraduate learners.
2. To support the development of professional behavior in postgraduate learners.
3. To encourage respectful dialogue about Professionalism in all aspects of the learning environment, both clinical and academic.
4. To outline a process to be followed for behaviour(s) inconsistent with professional practice.
VI  **Guidelines for Assessing Professionalism in Practice**

Below are broad definitions that may be used as a guideline in order to provide some standard of professionalism.

1. **Exemplary Behaviour** – defined in the “Exemplary Professional Practice” column of the PIP document.

2. **Minor Breach** – a one-time incident in any of the three domains in the PIP document, for which feedback / remediation can be almost immediately applied due to its low level of severity in that single incidence. The specific behavior descriptor is identified in the “Inconsistent with Professional Practice” column.

3. **Significant Breach** – A series of incidents of behavior Inconsistent with Professional Practice in one or more subdomains as defined in the PIP document, where feedback / remediation has been provided in regards to the earlier incidents or a single event of behavior Inconsistent with Professional Practice, as defined in the PIP document, that is considered by the Lead Educator or Program Director as significant in severity.

4. **Egregious Breach** – any incident for which there is concern of significant risk to others or illegal activity.

VII  **Reporting of Professional Behaviour**

Anyone who is associated with postgraduate learners is encouraged to provide feedback, both in instances of Exemplary Professionalism in Practice, as well as behaviours Inconsistent with Professionalism in Practice. This would include but not be limited to: teaching faculty, allied health professionals, peers, administrative personnel, junior learners, etc.

It is recognized that incidents may occur in clinical or non-clinical settings. Feedback should be given as close in time to the occurrence as the situation allows, following commonly accepted principles of giving feedback.

All occurrences of behaviour inconsistent with professional behaviour must be submitted to the Program Director in writing in order for the Program Director to formally address it.

Documentation may be in any form deemed acceptable by the program. This may include email, field note, progress note or any other program-specific form. The report will remain a part of the learner’s file.

- **Occurrences of Exemplary Professional Behaviour**

  If the event occurred in the context of a rotation-specific activity, this positive report should be sent to the Program Director and be copied to the faculty member completing the Learner’s evaluation for the educational component in which the behaviour occurred.
Occurrences of Behaviour Inconsistent with Professionalism in Practice

When there is an occurrence of possible unprofessional behaviour:

1. The individual who has observed or been part of this incident may choose to discuss the incident with the postgraduate learner.

   If the observing individual does not feel comfortable with this discussion, they may report the incident to the Lead Educator. If it is unclear as to who is the LE applicable to the situation, the incident can be reported to the Program Director who may investigate the incident themselves, or if appropriate, may ask the LE to do so.

2. The purpose of the conversation should be as follows:

   Clarify what happened:
   a. Describe what was observed;
   b. Allow the learner to describe their interpretation of what happened;
   c. Determine what motivations/intentions led to the behaviour including potential underlying personal circumstances.
   d. Give feedback appropriate to the circumstances, including strategies for improvement and potential resources or supports appropriate to the situation
   e. Describe what will be done next (e.g. report the occurrence further, monitor for improvement, acknowledge a misunderstanding, etc.)

3. The details of this discussion should be documented by the person having the discussion with the Learner.

   a. The Learner must be provided with a copy of the documentation. The Learner may wish to submit a written response to the note.

   b. Copies of the documentation should go to each of the:
      - Lead Educator
      - Program Director
      - Person Responsible for completing the evaluation for the educational component in which the incident occurred, where one exists

VIII Review / Monitoring by the Program

1. On receiving documentation of Behaviour Inconsistent with PIP, the Program Director will separately contact the individual(s) who have submitted the report as well as the Learner, to review the concerns. This should be done within 10 working days of learning of the incident. This discussion should include exploration with the Learner of their interpretation of what occurred as well as any underlying motivations, intentions or personal circumstances that may have contributed to the situation.
2. Based on their review, the Program Director will determine the severity of the breach (i.e. Minor, Significant or Egregious) based on the aforementioned definitions.

   a. At the discretion of the Program Director, or at the request of the Learner, the Program Director may review the incident with the Residency Program Committee in order to determine the severity of the incident.

   b. Previously documented incidents of Behaviour Inconsistent with PIP will be considered in determining the severity of the current breach, as per the definition of Significant Breach.

3. The Program Director will document his / her findings and the determination of the severity of the breach. (Refer to Appendix B for suggested elements of the documentation)

   a. These findings will be shared with the Learner, LE and, if different, the person responsible for completing the applicable evaluation (if one exists for the situation in which the incident occurred), for the purpose of providing feedback and future direction.

   b. The findings will become a part of the Learner’s academic record.

4. The Learner may appeal the findings. Refer to Postgraduate Policy and Procedures for the Evaluation of Postgraduate Students’ Performance, Section V on Appeals.

IX Categories of Behaviour Inconsistent with PIP

1. Minor Breach

   The Program Director will ensure that monitoring of the Learner’s professional behaviour is occurring.

   a. If the incident occurred in a setting for which there is an applicable evaluation, the person responsible for completing the evaluation will be expected to monitor for improvement in the behaviour. This person will be expected to gather feedback from other supervisors who have continuity in working with the Learner in that setting.

   b. Further incidents should be documented and reported as per the same process as described above.

   c. Progress in the Learner’s development of professional behaviours should also be noted to the Learner and to the Program Director.

2. Significant Breach

   The Program Director, together with the Learner, will develop an Remediation Plan (see below) for the Learner. The Program Director may also wish to consult with the Advisor, Professionalism in Clinically Based Education at any time in the process, and / or the Educational Advisory Board (EAB). If they have been consulted, the EAB should receive a copy of the remediation plan for review.
a. At the Program Director’s discretion or at the request of the Learner, the Program Director may arrange for a meeting of the Residency Program Committee to advise them around the development of the Remediation Plan.

b. The LE and person responsible for completing the evaluation may be invited to participate in the development of the Remediation Plan.

c. Monitoring of the Learner’s progress within the Remediation Plan is the responsibility of the Program Director and the RPC Residency Program Committee

   - Monitoring of incorporation of recommendations will occur within the evaluation hierarchy of the program.

   - If the behaviour inconsistent with PIP occurred in a setting for which there is an applicable evaluation, the person responsible for completing the evaluation will be expected to monitor for incorporation of recommendations and improvement in the behaviour. This person will be expected to gather feedback from other supervisors who have continuity in working with the Learner in that setting.

   - It is also expected that the Program Director will need to gather feedback from LEs in future settings in order to monitor progress.

   - Further incidents of behaviour inconsistent with PIP should be documented and reported as per the same process as described above.

   - Progress in the Learner’s development of professional behaviours should also be noted to the Learner and to the Program Director.

3. Egregious Behaviour

   Refer to the process outlined in the Policy and Procedures for the Evaluation of Postgraduate Students’ Performance, Appendix A: Suspension for Emergency Situations, should be followed. (see medportal under Policies). Program Directors are advised to also consult with the Assistant Dean of Postgraduate Medical Education.

X Remediation Plan

1. The learner must be seen as integral to the development of a plan for working towards improvement and thus should be encouraged to be involved in the process. The learner’s level of engagement in this process may reflect their insight into the issues identified and should be considered in the development of the Remediation Plan, discipline, and/or sanctions. This process should follow that outlined by the Postgraduate Medical Education Evaluation Policy. (See medportal, under Policies). The Residency Program may wish to consult the Educational Advisory Board (EAB).

2. Remediation plans should include potential resources and/or supports appropriate to the situation.
3. The Program Director and when requested, Residency Program Committee will develop and oversee the implementation of the Remediation Plan.

4. Appropriate documentation regarding the Remediation Plan (e.g., plan outline, meeting minutes, etc.) will be provided to all relevant parties. A copy of the report will be maintained in the Learner’s file, as should follow-up reports documenting outcome of recommendations. All parties involved in the implementation of recommendations and monitoring of the learner’s progress should also receive a copy of any relevant documentation including the Remediation Plan. In some circumstances this may necessitate the sharing of some aspects of the remediation plan with subsequent supervisors with whom the resident works while monitoring is required.

5. Where applicable, the incident(s) and learner’s progress should also be incorporated into the appropriate evaluation tool used for that educational component in which the behaviour was occurring. (e.g. ITER for a clinical rotation if behaviour occurred in this context)

6. Consideration should be given to advising the individuals who reported the incident of the outcome in general terms.

XI Appeal

1. Appeals will be conducted in accordance with the Policy and Procedures for the Evaluation of Postgraduate Student Performance.

XII References

1. McMaster University, Faculty of Health Sciences Professional Code of conduct for Learners http://www.fhs.mcmaster.ca/postgrad/


7. Guidelines for appropriate use of the Internet, Electronic Networking and Other Media http://www.fhs.mcmaster.ca/postgrad/policies.html To be reviewed annually
## Appendix A: Professionalism in Practice

### DOMAIN # 1: PROFESSIONAL RESPONSIBILITY/INTEGRITY

<table>
<thead>
<tr>
<th>Subdomains</th>
<th>Inconsistent with Professional Practice</th>
<th>Consistent with Professional Practice</th>
<th>Exemplary Professional Practice</th>
<th>CanMEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task completion</td>
<td>Failure to complete required tasks including administrative tasks</td>
<td>Completes required tasks including administrative tasks</td>
<td>Demonstrates leadership for system improvement, anticipates needs and is proactive in ensuring task completion</td>
<td>Expert&lt;br&gt;Manager&lt;br&gt;Advocate&lt;br&gt;Professional</td>
</tr>
<tr>
<td>Honesty</td>
<td>Dishonest or falsifies information</td>
<td>Truthful and honest</td>
<td>Discloses proactively and effectively to improve patient care and educational environment</td>
<td>Collaborator&lt;br&gt;Professional</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Fails to accept responsibility/blames others</td>
<td>Acknowledges and demonstrates ability to take appropriate responsibility</td>
<td>Accurately discerns complex challenges with appropriate engagement of resources.</td>
<td>Collaborator&lt;br&gt;Manager&lt;br&gt;Professional</td>
</tr>
<tr>
<td>Confidentiality</td>
<td>Fails to respect/neglects confidentiality</td>
<td>Respects confidentiality</td>
<td>Identifying potential risks to confidentiality</td>
<td>Advocate&lt;br&gt;Professional</td>
</tr>
<tr>
<td>Respect of learning environment</td>
<td>Abuses or damages physical learning environment and shared resources</td>
<td>Respects physical learning environment and shared resources</td>
<td>Contributes or improves the physical learning environment</td>
<td>Professional</td>
</tr>
<tr>
<td>Balance of interest: self and other</td>
<td>Chooses personal interest to the detriment of patient and colleagues</td>
<td>Can balance personal interests with the needs of patients or colleagues</td>
<td>Is a role model for balancing the needs of patients or colleagues</td>
<td>Communicator&lt;br&gt;Manager&lt;br&gt;Advocate&lt;br&gt;Professional</td>
</tr>
<tr>
<td>Subdomains</td>
<td>Inconsistent with Professional Practice</td>
<td>Consistent with Professional Practice</td>
<td>Exemplary in Professional Practice</td>
<td>CanMEDS</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------------------</td>
<td>----------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>
| Feedback                         | Resistant or defensive in receiving feedback | Willing to learn from and explore feedback | Actively seeks and integrates feedback | Collaborator  
Communicator  
Professional |
| Personal limits and reflective practice | Unaware of or difficulty acknowledging limits of knowledge, skills and attitudes | Aware and able to acknowledge limits of knowledge, skills and attitudes | Continually tests assumptions and conclusions around one’s own practice | Expert  
Professional  
Scholar |
| Personal development             | Neglects significant elements in all domains of education and development | Demonstrates commitment to continued growth in all domains of education and development | Recognized as role model in all domains of education | Expert  
Communicator  
Professional  
Scholar |
| Personal impairment              | Impairment.  
Failing to recognize or take action regarding a personal impairment (i.e. physical, cognitive, emotional) | No evidence of impairment.  
Recognizing or taking action in the face of potential impairment | Intervenes to address situational or environmental factors which could lead to impairment in self or others | Manager  
Professional |
| Initiative and motivation        | Does not demonstrate initiative and motivation | Achieves an appropriate level of initiative and motivation for the required task | A role model for balancing responsibilities and achievements; inspires initiative and motivation in others | Manager  
Professional  
Scholar |
<table>
<thead>
<tr>
<th>Subdomains</th>
<th>Inconsistent with Professional Practice</th>
<th>Consistent with Professional Practice</th>
<th>Exemplary in Professional Practice</th>
<th>CanMEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respect</strong></td>
<td>Disrespectful towards others</td>
<td>Respectful towards others</td>
<td>Exceptional insight and actions that enhance a culture of respect</td>
<td><strong>Collaborator Advocate Professional</strong></td>
</tr>
<tr>
<td><strong>Different points of view</strong></td>
<td>Lack of awareness of or devaluing different points of view</td>
<td>Aware of and acts with acceptance of different points of view</td>
<td>Develops a shared understanding of different points of view</td>
<td><strong>Collaborator Communicator Professional</strong></td>
</tr>
<tr>
<td><strong>Impact on others</strong></td>
<td>Demonstrates a lack of awareness and disinterest in understanding impact of self on others</td>
<td>Demonstrates awareness and willingness to reflect, receive feedback and learn about the impact of self on others</td>
<td>Actively seeks opportunities for enhanced self awareness to improve practice effectiveness</td>
<td><strong>Collaborator Professional</strong></td>
</tr>
<tr>
<td><strong>Needs and feelings of others</strong></td>
<td>Does not engage with needs, feelings of others</td>
<td>Willing to engage with the needs, and feelings of others</td>
<td>Acknowledged by others as committed to excellence in addressing the needs and feelings of others</td>
<td><strong>Collaborator Communicator Professional</strong></td>
</tr>
<tr>
<td><strong>Effect of stress</strong></td>
<td>Lacks insight into how stress impacts one’s interactions with others</td>
<td>Appreciates how one’s stress impacts interaction with others</td>
<td>Demonstrates management of own stress and facilitates positive communication during stressful situations</td>
<td><strong>Collaborator Professional</strong></td>
</tr>
<tr>
<td><strong>Personal appearance</strong></td>
<td>Appearance is not appropriate for context and lacks insight into how appearance affects relationship with patients and colleagues</td>
<td>Maintains an appearance consistent with a professional role in a setting that inspires trust</td>
<td>Actively builds trust through interpretation of the clinical context and subjective selection of attire</td>
<td><strong>Manager Professional</strong></td>
</tr>
</tbody>
</table>
Appendix B

**Documentation by Program Director**

The following elements are suggested for inclusion in the documentation completed by Program Directors when reviewing possible incidents of behavior inconsistent with Professional Practice and when monitoring progress and development of progress of professional development.

ii. Resident Information (name, year, rotation, dates, etc)

iii. Details of Incident

iv. Details of Discussion/Review of Incident

v. Responses to the Review

1. By resident

2. By Residency Program Committee

   vi. Plan

   vii. Progress over time
APPENDIX C: MANAGING INCIDENTS OF INCONSISTENT WITH PROFESSIONAL BEHAVIOR

Documented discussion with LEARNER by Observer, LE or PD

Copies of documentation to LE, PD and person responsible for completing the evaluation

PROGRAM DIRECTOR to discuss with individual submitting report and Learner

PROGRAM DIRECTOR to determine severity of incident

SIGNIFICANT BREECH
Meeting of RPC Evaluation Subcommittee to develop Remediation Plan including:
- Learner
- Lead Educator
- Person completing applicable evaluation
- Program Director
Program Director may consult with:
- Advisor, Professionalism
- Educ Advisory Board
Monitoring of Progress in Remediation Plan by:
- Person(s) completing applicable evaluation
- Program Director
- Subsequent Lead Educators where applicable

EGREGIOUS BEHAVIOR
Follow Policy & Procedures for the Evaluation of Postgraduate Students’ Performance, Appendix A: Suspension for Emergency Situations
Program Directors should consult Assistant Dean of Postgraduate Medical Education

MINOR BREECH
Monitoring by:
- Person completing applicable evaluation
- Program Director
Resident
Intimidation
Harassment

Break the Cycle

Postgraduate Medical Education
Are you part of the problem?
“It’s just part of the job.”
“...I don’t like it, but this is the way it’s always been.”
“Complaining won’t change anything.”
“...What can I do? besides I’ll be out of here soon.”
“...It’s a necessary part of training.”

Is it? Break the Cycle

• workload abuse
• ridiculing
• threatening gestures
• exclusion from learning experiences
• disallowing sick leave
• belittling comments

It’s not “just part of the job,” and it’s not a “necessary part of training.”
It’s harassment.
Surveys have confirmed that resident harassment does occur, and worse yet, is somehow viewed as acceptable behavior by some staff and residents.

It is not.

Resident Well Being

Trust, respect, fairness and a spirit of collegiality between faculty and residents at McMaster is essential for creating the best possible environment for learning. And in a teaching hospital, creating this environment will attract the best to McMaster as well as produce top quality physicians.
Research has shown that harassment and intimidation actually achieves the opposite environment – one that hinders learning. Incidents of harassment or intimidation undermine professional confidence, and in some cases compromise health care delivery. And, simply put, it’s unprofessional.

Harassment and intimidation includes, but is not limited to:
• unfair work demands;

• discrimination based on race, culture gender, religion, sexual orientation or school of medical graduation;

• verbal abuse: shouting, swearing, belittling, ridiculing, disparaging remarks of sexist, homophobic, religious or ethnic grounds;

• physical abuse: throwing objects, pushing, slapping or making threatening gestures; sexual abuse: unwelcome comments, gestures, touching or actions of a sexual nature;

• workload abuse: contractual infraction, excessive service volume, lack of supervision, or not making reasonable illness, disability or leave allowances;

• reprisal for having lodged, or being a witness in, a harassment or intimidation complaint; and

• education compromise: grading unfairly, or unreasonable exclusion from a learning experience.

Residents – what you should do:

The only way to break the cycle is to come forward. McMaster needs a process that is open and responsive to these issues, for everyone involved.

As a first step, residents can discuss the situation with either:
• the individual involved;
• a clinical supervisor;
• a representative of PAIRO
• a Program Director
• a Department or Division Head
If in doubt, or if a resolution does not occur, residents are encouraged to make a verbal or written complaint to the Assistant Dean, Postgraduate Medical Education. It will then be investigated in a fair and constructive manner for all parties concerned. The process is complainant driven, meaning the complainant will be consulted along each step of the way.

Faculty – what you should know

McMaster Postgraduate Medical Education strongly encourages faculty to be familiar with and adhere to the guidelines on harassment and education. A copy of these guidelines can be obtained from the Postgraduate Medical Education Office at 525-9140, extension 22118.

Break the Cycle

Like any form of abuse, resident harassment will continue in a generational pattern. If residents are taught in a way that focuses on learning through intimidation, they will be more likely to teach their future residents in the same destructive manner. All faulty and residents must help break this cycle.
For more information contact:
Postgraduate Medical Education Office
MDCL 3113
525-9140, extension 22118

Adapted with permission from Dalhousie Medical School.
Reporting Mechanisms

A. Informal Complaint (i.e., not written)

If a resident has experienced problems with harassment, sexual or otherwise, s/he should choose to deal with the issue in a way that s/he feels most comfortable.

The following are some resources/options available to deal with these types of problems. Again, the complaint is informal, i.e. unwritten; however, it is preferred that these discussions include the Faculty of Health Sciences Liaison, where appropriate. Even if discussions do not include the Faculty of Health Sciences Liaison, if would be preferred if the incident was reported to him/her, without naming the individuals involved; however, reporting will be left to the discretion of the complainant.

1. Discuss with the individual who is involved in the incident.
2. Discuss options with the Clinical Supervisor and/or Program Director and/or Assistant Dean, Postgraduate Education. If the incident falls within the University definition of Sexual Harassment, the Sexual Harassment Officer and/or Faculty of Health Sciences Liaison will be consulted. The complainant and respondent will not be identified.
3. Seek advice through the Professional Association of Interns and Residents of Ontario.
4. Discuss with a friend or family physician.
5. If the incident is a sexual harassment issue, discuss options with the Sexual Harassment Officer and/or Faculty of Health Sciences Liaison.

Informal Written Complaint

1. When a written/verbal complaint is received in the Postgraduate Education, the Assistant Dean, Postgraduate Education will formally seek appropriate counsel eg. Sexual Harassment Officer of Faculty Liaison, in consultation with the Resident’s Program Director.

The complaint should be made in a timely fashion, eg. no later than 12 months from the date of the harassment.

The complaint should include:
   a. Dates
   b. Names of individuals involved
   c. Full description of the incident
2. The respondent will be notified that a complaint has been filed with the Postgraduate Education Office.
3. With the permission of the complainant and the respondent a meeting will be scheduled with the Assistant Dean, Postgraduate Education and/or Program Director and/or Clinical Supervisor and appropriate University counsel eg. Sexual Harassment Officer. The complainant and/or respondent may be invited to meet separately with these individuals. Other individuals may be contacted to substantiate information.

The group will arrive at a negotiated process. However, the group may reach the conclusion that no resolution is possible. Both the complainant and respondent will be informed, in writing, within 5 working days of that determination.

4. If the complainant and/or the respondent is not satisfied with the decision of the group, s/he may request, in writing, a formal hearing. This request will be forwarded to the Board of Governors.

The procedures for formal hearings are detailed in the McMaster University Policy and Procedures on Sexual Harassment.
Preamble

Professionalism is defined as: “the conduct, aims, or qualities that characterize or mark a profession or a professional person.” It is the standard of behaviour by which the medical profession is judged by our health care colleagues and the public. Professionalism is one of the most important aspects of CanMEDS competencies. While the Medical Expert role is seen as the central role that distinguishes physicians from other Health Care professionals, professionalism can be viewed as the enabling competency for the other six CanMEDS roles.

Professionalism is also an integral component of the four principles of Family Medicine. It is a key competency for the maintenance of the Family Physician as a skilled clinician, a resource to their community and practice population as well as the centrality of the doctor/patient relationship in the role of the family physician.

In Postgraduate Medical Education, within the Faculty of Health Sciences, we are committed to teaching and evaluating professionalism throughout our residency training programs, both formally and informally. Postgraduate Medical Trainees (Trainees) include Residents, Clinical Fellows, and Research Fellows (although Research Fellows do not participate in clinical activities, the same principles apply). As members of the medical profession there are certain standards that fall within the realm of professionalism and lead to the specific expectations found within what is also called the Canadian Medical Association Code of Conduct. [http://www.cma.ca/index.cfm/ci_id/53556/la_id/1.htm](http://www.cma.ca/index.cfm/ci_id/53556/la_id/1.htm)

These Guidelines define the *minimum* expected behaviour and ethical performance; however, a Postgraduate Medical Trainee/Physician should always strive for exemplary ethical and professional behaviour.

While all physicians should strive to model professionalism and conduct themselves as exemplary physicians, it is accepted that physicians are people and people are not perfect. It is behaviour, particularly in stressful, difficult situations, that challenge the ability to demonstrate professionalism. The ability to admit error, learn from mistakes, and make amendments to one’s behaviour, is also a measure of professionalism.

**Responsibilities of the Professional:**

The Trainee must take responsibility for his / her own behaviour and uphold the relevant behavioural and ethical standards of the medical profession in general and more specifically, the standards of the profession within the CanMEDS / Four Principles competencies as defined by the two national accrediting authorities – the Royal College of Physicians and Surgeons of Canada and the College of Family Physicians of Canada. It is recognized that many of the CanMEDS competencies crossover and are not limited to one competency. However, for the purposes of this document, the behaviour will be only listed in one area.

- Consider first the well-being of the patient. **Medical Expert / Health Advocate / Manager**
- Respectful, honest, courteous communication with all individuals, particularly including patients, visitors, employees, physicians, volunteers, health care providers, co-workers, and the general public. **Communicator / Collaborator**
- Strive to pursue excellence in the acquisition of knowledge, skills, and attitudes in the medical profession. **Scholar**
Standards of Professional Behaviour:

The following is a list of some of the standards of professional behaviour for a Postgraduate Medical Trainee as a Medical Expert and Physician.

1. Communicator

- Being skillful at communicating and interacting appropriately with patients, families, faculty/instructors, peers, colleagues, and other health care personnel.
- Demonstrating empathy and compassion for patients and their families and caregivers.

2. Collaborator

- Providing appropriate transfer of responsibility for patient care (handover).
- Demonstrating respect for, and ability to work harmoniously with, instructors, peers, and other health professionals.

3. Manager

- Keeping proper patient records with particular respect for confidentiality of all patient information.
- Where patient informed consent to an action is required, the Trainee will act only after valid informed consent has been obtained from the patient (or from an appropriate substitute decision-maker).

4. Health Advocate

- Demonstrating concern for the needs of the patient and their families to understand the nature of the illness/problem and the goals and possible complications of investigations and treatment.
- Demonstrating concern for the psycho-social aspects of the patient’s illness/problem.
- Assessment and consideration of a patient’s motivation and physical and mental capacity when arranging for appropriate services.
- Exhibiting respect for, and ability to work harmoniously with, the patient and all those involved in the promotion of his/her wellbeing.
- Demonstrating awareness of the effects that differences in gender, sexual orientation, cultural and social background may have on the maintenance of health and the development and treatment of illness/problems.

5. Professionalism

- Establish appropriate boundaries in the physician-patient relationship as well as health professionals being supervised (not for personal benefit, gain, or gratification).

6. Scholar

- Attending all mandatory educational sessions and clinical placements or provide appropriate notification of absence.
- Recognition of the importance of self-assessment and of continuing education.
- Demonstrating a willingness to teach others within medicine and other health professionals.
- Demonstrating an understanding of the appropriate requirements for involvement of patients and their families in research.
Inappropriate Conduct

Trainees at McMaster University will refrain from taking any action which is inconsistent with the appropriate standards of professional behaviour and ethical performance, including refraining from the following conduct:

1. Misrepresenting or misleading anyone as to his or her qualifications or role in person or on the internet.
2. Providing treatment without appropriate supervision or authorization.
3. Misusing or misrepresenting his/her institutional or professional affiliation.
4. Stealing or misappropriating or misusing drugs, equipment, or other property.
6. Unlawfully breaching confidentiality, including but not limited to accessing electronic records of patients/clients for whom s/he is not on the care team.
7. Being under the influence of alcohol or recreational drugs while participating in patient/client care or on call or otherwise where professional behaviour is expected.
8. Being unavailable while on call or on duty (not answering pages or attending to clinical work).
9. Failing to respect patients’ rights and dignity.
10. Falsifying health records.
11. Committing sexual impropriety with a patient, patient’s family members, staff or other care providers.
12. Violating other physician boundaries. Examples of boundary violations are treating one’s own family members, writing prescriptions for people who are not your patients, accepting gifts or favors from patients Accepting significant gifts or favors is not encouraged because of the fiduciary nature of the doctor patient relationship.
13. Committing any act that could reasonably be construed as mental or physical abuse.
14. Behaving in a way that is unbecoming of a practising professional in his or her respective health profession or that is in violation of relevant and applicable Canadian law, including violation of the Canadian Criminal Code.
15. Committing acts that can be interpreted as Academic Dishonesty.

Unexplained and ongoing violation of these expectations of Professional Behaviour (see Appendix 1) or Examples of Unprofessional behavior (see Appendix 2) will constitute reasons for suspension of duties for unprofessional behavior. It may also mean notification of the College of Physicians and Surgeons of Ontario.
Appendix 1: Some Examples of Model Behaviours of Professionalism

1. Arrives on time and prepared for work.
2. Notifies appropriate people, if not able to come into work, in a timely fashion.
3. Appropriate (inoffensive) dress and cleanliness.
4. Follows up on patient care issues that are identified.
5. Understands one's own limitations and seeks help when needed.
6. Detailed handover of patients, both giving and receiving.
7. Acts as a patient and health advocate
8. Completes medical records honestly and punctually.
9. Treats patients/family/staff/paraprofessional personnel with respect
12. Actively seeks and incorporates feedback.
13. Introduces him or herself as well as other members of the team, to the patient and family.
14. Effectively coordinates the health care team and manages health care resources.
15. Accepts responsibility/accountability.
16. Recognizes the influence of marketing and advertising on their clinical care.
17. Open/responsive to input/feedback of other team members, patients, families and peers.
18. Use humour/language appropriately.
19. Discusses adverse events including death honestly, sensitively, patiently, and compassionately.
20. Participates in peer-review process.
21. Demonstrate fairness in recruitment of postgraduate trainees
Appendix 2: Some Examples of Unprofessional Behaviour

**Inappropriate words:**

- profane, disrespectful, insulting, rude demeaning or abusive language;
- shaming others for negative outcomes;
- inappropriate arguments with patients, family members, staff or other care providers;
- gratuitous negative comments about another physician’s care (orally or in chart notes);
- passing severe judgment or censuring colleagues or staff in front of patients, visitors or other staff;
- outbursts of anger;
- behaviour that others would describe as bullying;
- insensitive comments about the patient’s medical condition, appearance, situation, etc.;
- jokes or non-clinical comments about race, ethnicity, religion, sexual orientation, age, physical appearance or socioeconomic or educational status.

**Note:** Comments that are or may be perceived as being sexually harassing which are directed at patients may fall under the definition of sexual abuse at s. 1(3) in the *Regulated Health Professionals Act, 1991*. Such comments which are directed at non-patients may be professional misconduct.

**Inappropriate actions/inaction:**

- throwing or breaking things;
- refusal to comply with known and generally accepted practice standards such that the refusal inhibits staff or other care providers from delivering quality care;
- use or threat of unwarranted physical force with patients, family members, staff or other care providers;
- repeated failure to respond to calls or requests for information or persistent lateness in responding to calls for assistance when on-call or expected to be available;
- not working collaboratively or cooperatively with others; and
- creating rigid or inflexible barriers to requests for assistance/cooperation.

**Related Documents for further Reference**

(links are also available on Medportal:  http://postgrad.medportal.ca/)

1. McMaster University Faculty Policy and Procedures for the Evaluation of Postgraduate Students
2. Postgraduate Medical Education: Code of Conduct for Clinical Teachers
3. Hamilton Health Sciences Value-Based Code of Conduct
   [http://www.hamiltonhealthsciences.ca/body.cfm?id=1056](http://www.hamiltonhealthsciences.ca/body.cfm?id=1056)
4. St. Joseph’s Healthcare Standards of Behaviour (available on the Postgrad website)
5. Provincial Guidelines for Appropriate Use of the Internet
References

1 Royal College of Physicians and Surgeons of Canada – CanMEDS
   http://rcpsc.medical.org/canmeds/index.php


3 The Association of Faculties of Medicine of Canada (AFMC) website, Social Accountability and Professionalism
   http://www.afmc.ca/social-professionalism-e.php

4 The Canadian Medical Association (CMA) website, Medical Professionalism
   http://www.cma.ca/index.cfm/ci_id/3300/la_id/1.htm

5 College of Physicians & Surgeons of Ontario (CPSO), Disruptive Physician Behaviour Initiative, Guidebook, april 2008:
   http://www.cpso.on.ca/policies/positions/default.aspx?id=1730

20 November 2008
Approved PGEC November 19, 2008
The Practice Guide

The Practice Guide: Medical Professionalism and College Policies, introduced in 2007, articulates our profession’s existing values – compassion, service, altruism, and trustworthiness – which provide the foundation for the practice of medicine.

But the practice guide is much more than a blanket statement of positive values. It will assist you in determining your specific duties and explains the reasons for those duties. And because College policies are built right into the framework, it becomes clear how policies are grounded in the values and principles of practice. The format of the guide allows the values, principles and policies to flow into each other, providing both relevance and resonance.

Medical professionalism is the translation of these values into practice and underpins the social contract between the medical profession and the public: in return for the privilege of self-regulation, the profession makes a commitment to promote the public good.

The social contract is a covenant of the profession as a whole. Individual physicians are not expected to assume responsibility for society at large but to uphold the social contract through their commitment to their profession, their medical practice, and their patients.

Translating these values and principles into practice isn’t always easy. But it is achievable. In fact, these values are exhibited daily in physicians’ offices and hospitals across Ontario, reflecting the profession’s longstanding tradition of excellence.

What the guide does not do is describe specific standards for practice, create legal obligations or provide guidance for every situation that may arise in the practice of medicine. For specific situations that are not covered here, you should rely on the values and principles to guide your practice, and do not hesitate to seek advice.

The guide’s continued relevance demands that it reflect an evolving environment. So while values and principles are not likely to change, it is possible that specific duties and policies will.

To remain responsive, the College welcomes your feedback on the guide and the policies it frames. Key sections from the practice guide follow, and the complete guide and all policies and publications are available online at www.cpso.on.ca under Policies and Publications.
VALUES OF THE PROFESSION

Compassion

Individual doctors serve their patients by assessing, diagnosing and treating patients, and through rehabilitation and habilitation, palliation, health promotion, and disease prevention. However, medicine is more than procedures and physicians are more than purveyors of technology. Compassion is fundamental to the relationship between the patient and the doctor. Compassion is defined as a deep awareness of the suffering of another coupled with the wish to relieve it.

Service

Service means working for the benefit of another. Doctors in Ontario are dedicated to serving their patients.

To serve their patients, physicians must be competent in the medical areas in which they practice. Competence requires the application of current knowledge with requisite skill and judgment needed to meet the patient’s medical needs. In this, physicians should strive for excellence.

Service is not only competence; it is also putting the patient first. A physician has professional responsibility to their patients, individually and collectively; their patients’ families; their own practice; and the health care system. However, at any given time a physician’s primary responsibility is to the individual patient before them.

Physicians, as a profession, also have a collective responsibility to the public, which is demonstrated by collaborating with and supporting colleagues and other health professionals, and participating in selfregulation in the public interest. The profession has a critical responsibility to the public as a whole via its responsibility to regulate. Just as doctors serve patients, the College, as the representative of the profession in selfregulation, has the ethical and statutory responsibility to serve the public by regulating physicians in the public interest.

Altruism

Altruism, as a principle of action, is the highest commitment to service. Altruism in medicine is defined as practising unselfishly and with a regard for others.

Patients’ needs are paramount and must be considered before the individual physician’s needs, the needs of physicians as a group, or the public as a whole. This is not to say that physicians must sacrifice their health or other important aspects of their life for their patients. Rather, it means that when providing care to a patient, a physician should always put that patient first.
Trustworthiness

Trustworthiness is the cornerstone of the practice of medicine. It is the demonstration of compassion, service and altruism that earns the medical profession the trust of the public. This trust manifests itself in the social contract between the profession and the public, as well as the relationship an individual patient has with his or her doctor.

Maintaining trust is an important aspect of medical professionalism. Patients must be able to trust that the physician will always uphold the values of the profession; in the absence of the trusting relationship the physician cannot help the patient and the patient cannot benefit from the relationship.

Overarching principles of practice flow from the values articulated above. The principles of practice, in turn, ground the specific duties of the individual physician.

Physicians accepted into practice in Ontario meet a standard of excellence in education and performance. Patients trust their physicians to be clinically competent in all areas of their practice. However, competence is more than just clinical skills and knowledge; it is also practising safely and effectively. Safe and effective care is achieved when physicians know about and abide by their professional obligations, and are competent as communicators, collaborators, advocates, and managers. It is expected that throughout a physician’s career he or she will maintain his or her competence to ensure that patients receive the best care possible.

The principles of practice listed below encompass these competencies. Duties reflect the profession’s values and demonstrate the principles of practice in action.

A. INDIVIDUALLY TO THE PATIENT

Principles of Practice

The doctorpatient relationship is the foundation of the practice of medicine. It reflects the values of compassion, service, altruism, and trustworthiness. Trustworthiness is the cornerstone of the doctorpatient relationship; without trust a good doctorpatient relationship cannot exist.

Physicians have a fiduciary duty to their patients — because the balance of knowledge and information favours the physician, patients are reliant on their physicians and may be vulnerable. The patient must always be confident that the physician has put the needs of the patient first. This principle should inform all aspects of the physician’s practice.

Physicians are expected to make their patient’s needs the first priority, but accomplishing this requires a broader focus than the direct physicianpatient relationship. In order to meet individual patient needs, physicians should consider their contributions to their individual patients, but also to their own practice, the community, and the health care system. Physicians hold a respected position in society and, in return, they have responsibilities. Physicians should never forget that their primary responsibility is to the patient(s) standing before them, either individually or collectively.
Duties

1. Demonstrating Professional Competence

Physicians should be skilled clinicians committed to the values of the profession.

Physicians should be committed to lifelong learning and be responsible for maintaining the medical knowledge and clinical skills necessary to provide the highest possible quality of care to patients.

At all times physicians should:

• be aware of deficiencies in knowledge or ability;
• obtain help when needed; and
• ensure that their practice matches their level of competence.

In terms of individual patient care, physicians should provide medical care based on objective evidence whenever possible. This includes demonstrating a sense of inquiry and taking a scientific approach to solving clinical issues for the benefit of the patient.

2. Maintaining Confidentiality

An important component of trust is the honest and compassionate communication of information in complete confidence.

Receiving and giving sensitive patient information is essential to the physician’s ability to provide quality care to the patient. Patients give information to physicians in a unique context where they have the utmost faith that the physician will maintain patient privacy and confidentiality.

Physicians must safeguard patient information. Occasionally, however, their responsibility to the public outweighs their responsibility to an individual patient, necessitating reporting to another party.

3. Collaborating with Patients and Others

Providing the best quality care for the people of Ontario requires physicians to work together effectively — with patients, other doctors and other health professionals — within the organizations, institutions and systems for health care delivery in Ontario.

Collaboration with an individual patient is essential to providing good medical care. The physician must work with the patient in order to understand the patient’s health care needs, to formulate treatment plans that are optimal for the patient, to ensure that the patient remains informed about his or her care, and to address patient questions and concerns. To maximize the effectiveness of collaboration, physicians must have patients’ trust, which is maintained, in part, through effective communication and treating patients with respect.
Collaboration is not only about getting along and treating others with respect — although this is extremely important — it is also about recognizing and accepting the unique roles and contributions of other health professionals. The best interests of patients are served when physicians utilize the skills of others, whether they are physicians or other health professionals.

Good quality health care is often delivered by a team of professionals and individuals who contribute expertise in a variety of ways. To achieve the goal of providing the best possible health care to patients, physicians should also make a commitment to those others who share this goal. Physicians should work respectfully and collaboratively with other members of the health care team to maximize the quality of patients’ care.

4. Communicating with Patients and Others

Good communication is a fundamental component of a trusting doctorpatient relationship. Communications with patients, their families, colleagues, and other health care professionals should always reflect civility and professionalism.

Physicians should ensure that patients are appropriately informed about their medical care. All communication with patients should recognize an individual patient’s autonomy and demonstrate a collaborative approach to patient decision-making.

Physicians should demonstrate cultural sensitivity in their communication with patients and families.

Physicians should demonstrate an awareness of their own values and how their values relate to or differ from those of their patients and families.

While communicating with compassion and engendering the trust of patients are vital to the doctorpatient relationship, physicians should also be aware of boundary issues and the potential for transference in the doctorpatient relationship.

Should conflict arise, either between the physician and patient, or the patient’s family, the physician should work with the patient, the patient’s family (if the patient consents) and any other supports to resolve the conflict respectfully. However, if the patient wishes to limit the information available to family or even other health care professionals who are also providing care, the physician must respect that decision.

In communications with the community at large, physicians must ensure that representations they make are, to the best of their knowledge, truthful.

Physicians should participate in educating patients and colleagues to ensure that medical knowledge is appropriately conveyed to facilitate health promotion and disease prevention.
5. Managing Conflicts of Interest

A physician must always act in the patient’s best interests. A physician’s interests should not be in conflict with the patient’s. Any conflicts of interest must be properly managed so as not to compromise the patient’s best interests, or be avoided.

Physicians should guard against compromising their duty to their patients by pursuing personal advantage, whether financial or otherwise, at the expense of the patient. Physicians, like any other member of society, are entitled to earn an income and be paid appropriately for their services to patients. However, in all situations where a conflict of interest arises in the course of professional duties and activities, physicians should recognize the conflict, ensure that the patient’s best interests remain paramount and, where appropriate, disclose the conflict of interest to the patient.

Physicians should also be aware of the possibility of damage to the reputation of the profession by the appearance of a conflict, even though an actual conflict may not exist, and avoid creating such a perception.

6. Advocating for Patients

Advocacy is an important component of the doctor-patient relationship; physicians should, individually and collectively, advocate for their patients. Advocacy involves the responsible use of expertise and influence to advance patients’ health care interests.

Individuals: The health care system is a complex network of care providers, services and benefits. To ensure that patients receive fair and efficient treatment by others involved in their care, physicians should use their knowledge of the system to assist their patients in successfully navigating this network.

Communities and Populations: Physicians have a responsibility to advocate on behalf of their patients to advance policies that promote the health and wellbeing of the public.

B. AS A MEMBER OF THE PROFESSION, COLLECTIVELY TO THE PUBLIC

Principles of Practice

That the values of compassion, service, altruism, and trustworthiness apply to the individual doctor-patient relationship is clear. Physicians have responsibilities to patients which, as noted earlier, are paramount. However, these values are also reflected in the individual physician’s responsibility to the profession of medicine, inasmuch as the medical profession works together to serve the public interest.
Duties

1. Participating in SelfRegulation

Physicians have been granted the privilege of selfregulation. Society allows physicians to regulate themselves in return for the covenant that this regulation will occur in the public interest. The social contract between the public and the profession places certain responsibilities on the physician as an individual, with respect to his or her colleagues and with respect to collective involvement for the best interests of patients and the community. Meeting these responsibilities requires efficient and appropriate governance and a reliable system of accountability. It is not enough for physicians to accept regulation. To ensure the continuity of selfregulation, each physician should, along with the College, participate in the selfregulatory process.

The goal of regulation is to serve the public by ensuring the best quality care for patients in Ontario. Both the College and individual physicians have a responsibility to ensure quality care by continually improving skills and behaviour as well as responding to concerns around practice/behaviour.

The responsibility for maintaining medical professionalism lies with physicians themselves. Acting in concert with his or her peers, each physician contributes to defining the expectations or standards of the profession as a whole. Individually, each physician upholds those standards in his or her own actions. Fulfillment of this duty is essential to selfregulation.

2. Reporting

Physicians must be aware of their reporting obligations and be truthful and forthright in their reports, whether in the context of patient charting, recording of research results, or providing expert information to third parties (i.e., the court, WSIB, insurance companies).

Physicians have a legal and professional duty to keep information about their patients private and confidential. However, under certain circumstances, physicians are required by law, or expected by the College, to report particular events or patient conditions to the appropriate government or regulatory agency. These are ‘mandatory reports’, and are an acceptable breach of patient privacy and confidentiality for a greater societal good.

3. Educating

Physicians should teach and learn. The profession, and its service to patients, can only be improved by taking a collaborative approach, participating in peer reviews, supporting each other, educating and mentoring each other, and participating in formal education — both within and outside of the profession.

When they are involved in teaching others, physicians should provide instruction in the context of the values set out above.

By teaching others — colleagues, students, other health professionals, their patients, and the community — physicians help ensure that high quality care will be provided to their individual patients and the public in general.
4. Learning

Physicians have a duty to seek out new evidence and knowledge, to share this knowledge with others and to apply it in practice.

Physicians are expected to keep abreast of current developments in their field, which includes maintaining an awareness of relevant practice guidelines and implementing them as appropriate. All research must be initiated and pursued in an ethical manner.

5. Advocating for a Safe Health Care System

A health care system that balances safety, caring and effectiveness is the best way to ensure patients receive high quality care. To improve the quality of care that the system provides, physicians should work collaboratively with other professionals to reduce the incidence of medical error and adverse outcomes.

Physicians should also collaborate with others for the effective management of health care resources.

6. Collaborating with Other Health Care Professionals

In addition to an individual physician’s responsibility to collaborate with other members of a health care team in providing care to individual patients, physicians as a group have a responsibility to collaborate with other health care professionals in order to serve Ontario patients.

This kind of collaborative interaction between physicians and others includes the exchange of information; developing collaborative guidelines; fostering positive relationships at the institutional level; sharing decisionmaking, where appropriate and in the patient’s best interest; and developing policies that ensure quality of care.

C. TO THEMSELVES AND COLLEAGUES

Principles of Practice

The practice of medicine is challenging. Physicians are expected by the profession and the public to meet high standards for excellence in the care they provide to patients. In addition, physicians often face competing demands — from patients, other health care professionals, the health care system, and from the expectations the physician holds for him or herself. These factors can give rise to stress, fatigue, exhaustion and frustration, which can have an impact on both the physician personally and the care the physician is able to provide to his or her patients.

Physicians, as a group, should provide mentorship, support and care to one another, in order to ensure their patients receive quality care, as well as to maintain their own personal wellness.
**Duties**

1. **Mentorship**

Physicians should be prepared to provide to colleagues, and accept from colleagues, both formal and informal mentorship. Mentorship involves the sharing of knowledge, experience and ideals, and allows physicians the opportunity to obtain advice and support in their various physician roles. As mentors, physicians should lead by example. Mentorship is also an informal mechanism for maintaining the high expectations and standards of the profession.

2. **Wellness**

Physician wellness is a critical component of the professional practice of medicine. Wellness is defined as the condition of good physical and mental health necessary to provide high quality care to patients and to fulfill the duties noted above. Because physicians cannot serve their own patients if they are not well, physicians may have to put their own needs for wellness ahead of the needs of individual patients or the public as a whole in some circumstances.

Physician wellness is also important for its own sake, independent of any responsibility to others. Physicians should only care for patients when they are well enough to do so. In order to ensure that patients receive high quality care, physicians have a responsibility to:

- be aware of their own health, which includes being able to recognize when they are not well enough to provide competent care;
- obtain help, if necessary, from colleagues, their own physician, or other supports, in order to ensure their own wellness;
- adjust their practice, as necessary, to ensure that patients can and do receive appropriate care.

The best interests of patients are served when physicians take time to meet their own needs and are continually aware of their own wellness. This means recognizing limits imposed by fatigue, stress or illness and taking care to ensure a healthy worklife balance. This is not always easy. Physicians set high expectations for themselves and may not immediately recognize either transient or longer term periods of incapacity. Recognition of transient incapacity is particularly difficult.

In leading by example for patients and colleagues, physicians should avoid selftreatment. Instead, physicians should try to establish a relationship as a patient with another physician they trust for care and should seek advice about their own care from that physician.

If a physician knows that he or she has a serious condition that could be passed on to patients, or that his or her judgment or performance could be significantly affected by a condition or illness, or its treatment, that physician should seek professional advice about ongoing clinical practice.
3. Collegiality

Collegiality is cooperative interaction between colleagues. The collegiality of relationships can affect the comprehensiveness and continuity of care patients receive, particularly through the referral and consultation processes. For this reason, physicians should be collegial in their dealings with one another. Mutual trust, respect, and knowledge of each other’s expertise, skills and responsibilities are all important to establishing collegial relationships.

This is not to say that collegiality may be used to mask ineffective or inappropriate practice, or to protect incompetent or incapacitated physicians. Rather, physicians should accept and support meaningful peer evaluation as a mechanism for upholding the standards of the profession.

Collegiality also fosters cooperation as a profession. At times, it is as a unified voice that physicians can best advance their patients’ interests. Physicians should support each other not only individually, but should also, collectively, support the profession in working for the public interest.

Physicians should enter into professional associations and collaborations only if, in doing so, they can maintain professional integrity and safeguard the interests of their patients.

MANAGING CONFLICTING DUTIES

Conflict among the duties outlined in the guide is inevitable. When conflict arises, you should first refer to the fundamental values that ground the principles and duties that follow. For example, if there is a conflict between a physician’s obligation to a patient and the obligation to the system (e.g., efficiency), the profession’s commitment to the value of altruism makes it clear that the patient should always come first.

Conflicts will not always involve a clear choice between values, instead requiring a balancing of duties and values to determine the best way to proceed. Consultation with colleagues, the College and/or the CMPA or other insurance provider is often the best way to work through these issues.

To remain responsive, the College welcomes your feedback on the guide and the policies it frames, all of which are available online at www.cpsq.on.ca.
CODE OF CONDUCT FOR POSTGRADUATE TEACHERS

PREAMBLE:

This Code of Conduct for postgraduate teachers has been developed from the Queen's University's Guide to Ethical Behaviour of Clinical Teachers. This document must be viewed in context with the Canadian Medical Association of Code of Ethics, which is appended.

The Code of Conduct is applicable to all individuals who accept the responsibility to train postgraduate medical trainees.

RESPONSIBILITIES TO STUDENTS:

The ethical clinical teacher will:

1. treat students with respect regardless of level of training, race, creed, colour, gender, sexual orientation, or field of study, recognizing that there is a power differential between the teacher and student;

2. refrain from the intimidation and harassment of student in any fashion - emotional, physical or sexual;

3. maintain a professional teacher/student relationship at all times and avoid the development of sexual and/or financial relationships with students;

4. be willing and able to see patients under their own care or under the care of their service when so requested by students;

5. teach the knowledge, skills, attitudes and behaviour and provide the experience that the student requires to become a physician in his/her chosen career;

6. supervise students and allow them responsibility as is appropriate to their level of training and commensurate with their ability, as well as to the extent that is allowed by law;

7. support and encourage students in their endeavours to learn, and to develop their skills, attitudes and a sense of enquiry;
8. demonstrate to students the rational basis for clinical decision making from investigation to diagnosis and to treatment, based on the best evidence available;

9. assess carefully and accurately with a minimum of personal bias, the student's abilities and provide timely verbal and written feedback to the student and to the student's program;

10. support and facilitate remedial teaching when it is necessary;

11. conduct herself/himself as exemplary physician.

If a student has concern that s/he has not been dealt with by a teacher in an ethical manner s/he has the option and should be encouraged to discuss the situation more fully with one or more of the following individuals:

- Individual with whom the student is having the problem
- Friend, confidante
- Program Director
- Assistant Dean, Postgraduate Education
- Associate Dean (Education)
- Faculty of Health Sciences Liaison Officer
- Human Rights and Equity Services Office, McMaster University
HAMILTON HEALTH SCIENCES (HHS) IS COMMITTED to fostering a positive and supportive work environment for all HHS team members. It is expected that all HHS team members live the values of respect, caring, innovation and accountability in order to accomplish day-to-day responsibilities, achieve organizational and team goals, and provide exemplary patient and family-centred care.

1.0 Purpose
1.1 This protocol promotes conduct that aligns with HHS’ values.
1.2 This protocol outlines appropriate behaviour that fosters positive working relations between every member of HHS.
1.3 This protocol outlines a process to address and eliminate inappropriate behaviour.

2.0 Policy Statements
2.1 Principles
2.1.1 This protocol is corporate-wide, and pertains to board members, employees, medical/professional staff, contract staff, volunteers, learners and students.
2.1.2 Respect is something that we all deserve. The HHS Values-Based Code of Conduct is based on RESPECT and is outlined below:

**R Responsibility** - Accountable for own actions and outcomes.

**E Etiquette** - Demonstrate awareness and acceptance of diversity by being polite and considerate.

**S Support** - Foster an environment that recognizes the various needs of individuals.

**P Professionalism** - Adhere to HHS values and policies, as well as professional and regulatory standards and practices.

**E Education** - Continuously develop and demonstrate behaviour that fosters a positive working and teaching environment.

**C Communication** - Use clear and concise language, along with appropriate methods for giving direction and providing constructive feedback: remember your body language.

**T Teamwork** - Treat all individuals as valuable members of the team.

2.1.3 Unionized staff has the right to union representation in matters related to inappropriate behaviour.

2.1.4 This protocol does not interfere with the rights and obligations specified in the collective agreements between Hamilton Health Sciences, unions, and medical staff.

2.1.5 This protocol does not interfere with the rights of individuals to seek alternative processes either through their union, Human Resources Department, Patient Relations/Risk Management, externally through the Ontario Human Rights Commission, through the Hamilton Police Service and/or the courts.

2.2 Accountabilities

2.2.1 For everyone at HHS:

All individuals at HHS are expected to maintain a work environment free from inappropriate behaviour. As such, each individual takes responsibility and is accountable for his/her behaviour.

It is the responsibility of each member of HHS to:

(a) Acknowledge, read, and uphold the HHS Values-Based Code of Conduct

(b) Ensure that his/her attitudes and behaviours are consistent with the HHS Values-Based Code of Conduct.

(c) Speak to colleagues when their behaviour is inconsistent with the HHS Values-Based Code of Conduct and address issues directly with the person in a confidential, positive and professional manner.

(d) Not discuss workplace conduct, concerns and conflicts with or in front of patients, their families and friends, and customer groups.

(e) Report continued inappropriate behaviours to your manager.
2.2.2 For the HHS **manager**: Managers share responsibility with other leaders for providing a work environment that is free from inappropriate behaviour.

It is the responsibility of each HHS manager to:
(a) Ensure that each individual under his/her direction upholds and follows the HHS Values-Based Code of Conduct.
(b) Investigate reports of violations of the HHS Values-Based Code of Conduct, document and initiate appropriate action within one week. Appropriate action may include referral to counseling (e.g. Hurst Place-Employee Assistance Program, Employee Health), coaching, and mediation.
(c) Contact Human Resources associate when inappropriate behaviour persists and progressive disciplinary action is required.

3.0 Procedure
The HHS Values-Based Code of Conduct is a protocol for everyone at HHS. Each individual is accountable for adhering to the protocol and should always attempt to deal with issues immediately and professionally. Any individual who experiences or observes inappropriate behaviour in the workplace is empowered to address these behaviours that do not align with the HHS Values-Based Code of Conduct. The process for responding to inappropriate behaviour involves five stages. It may not be necessary to move through all five of the stages, as this will depend on the individuals involved and the situation.

The recommended process for responding to inappropriate behaviour is outlined below.

3.1 Process for Dealing with **Inappropriate Behaviour**
An individual may choose to begin the process at Stage 1, 2 or 3 depending on the circumstances of his/her situation. In certain cases, for example, if the situation is more serious in nature, it may be necessary to move directly to Stage 4 or 5. Communicating with individuals about inappropriate behaviour should be done face-to-face, not by e-mail.

3.1.1 **Stage 1-Direct Communication**
The individual attempts to resolve the issue by communicating directly with the person in a confidential and professional manner. Ideally, this should be done face-to-face but if this is not possible, it could be done by telephone.
If the individual is not comfortable communicating directly with the person about the behaviour, or if the issue cannot be resolved, assistance may be needed.

3.1.2 **Stage 2-Seek Assistance**
The individual seeks out a peer or co-worker that he/she trusts, to develop strategies for speaking with the person about his/her behaviour.
3.1.3 **Stage 3-Seek Coaching from Manager, Chief of Professional Practice or Practice Leader**

The individual seeks assistance from his/her manager, Chief of Professional Practice or Practice Leader. Coaching is provided to assist the individual in developing an approach for speaking with the person about his/her behaviour. If the person that the individual has an issue with is his/her own manager, then the individual should seek assistance from the individual who supervises his/her manager.

In order to promote a healthy work environment, if the issue remains unresolved, it is important to proceed to the next stage.

3.1.4 **Stage 4-Manager Response**

At this stage of the process the responsibility for resolution shifts from the individual to the manager. In cases involving health care professionals, this may occur in conjunction with the Chief of Professional Practice or Practice Leader. If the person that the individual has an issue with is his/her own manager, then the individual should seek assistance from the individual who supervises his/her manager. The manager initiates appropriate action within one week of being notified of the inappropriate behaviour. The manager meets with the individuals involved and any witnesses to gather the facts. If the individuals involved report to different managers, the managers work together to determine how to resolve the issue. The manager documents the investigation process, which includes statements from the individuals and the witnesses. The manager determines what needs to occur in order to resolve the issue and outlines what is expected of the individuals. The manager may decide to intervene using development strategies, negotiation and/or mediation, or referral to Hurst Place (Employee Assistance Program). The manager is responsible for ongoing communication with all parties involved regarding the resolution process.

3.1.5 **Stage 5-Progressive Discipline**

Before taking any steps towards progressive discipline, it is the responsibility of the manager to consult with Human Resources and the Chief of Professional Practice and/or Practice Leader regarding staff or the Vice President Medical regarding physicians.

(See Appendix: The Values-Based Code of Conduct Resolution Process)

4.0 **Definitions**

**Assault** - A violent physical or personal attack.

**Contract Staff** - anyone who enters into an agreement with HHS to perform work, but not an employee of HHS.

**Harassment** - conduct that would be considered, by a reasonable person, to interfere with the climate of understanding and mutual respect for the dignity or worth of each person (see Appendix A).
HHS Values are respect, caring, innovation, and accountability.

Respect - We will treat every person with dignity and courtesy.

Caring - We will act with concern for the well being of every person.

Innovation - We will be creative and open to new ideas and opportunities.

Accountability - We will create value and accept responsibility for our activities.

Hospital Affiliates - students, learners, volunteers and contract staff.

Human Rights Specialist - the most responsible person for managing the HHS Harassment Protocol. This person approaches all human rights situations with an ‘arms length’ role, being unbiased and supportive to all parties involved.

Inappropriate Behaviour - conducting oneself in a way that is undesirable, unsuitable, improper or incorrect. Inappropriate behaviour can be a subjective interpretation based on how an individual expects to be treated. Inappropriate behaviour may be written, verbal or behavioural.

Examples of inappropriate behaviour or conduct include:

- Comments that are insulting, hurtful, disrespectful or rude
- Threatening or abusive language directed at an individual
- Degrading or demeaning comments
- Profanity or similar offensive language
- Physical behaviour with another individual that is perceived as threatening, intimidating or unwelcome
- Body language that is irritating or offensive
- Discussing workplace conduct, concerns and conflicts in front of others
- Passive / aggressive behaviour (see definition below)

If the inappropriate behaviour and/or conduct involves any of the following:

- Harassment
- Assault
- Criminal conduct

Security and/or the Human Rights Specialist are contacted.

Manager - Managers include the CEO, vice presidents, assistant vice presidents, directors, managers, Chiefs of Professional Practice-Nursing, supervisors, and medical chiefs. For those individuals who are unsure of whom to report unresolved issues involving inappropriate behaviour to, Human Resources defines the most responsible person. For medical staff, unresolved inappropriate behaviour issues are reported to the Department Chief.

Passive-Aggressive Behaviour - describes behaviour that is passive in expression but is aggressive or malicious in intent. The purpose of passive-aggressive behaviour is to express anger without having to be responsible for that anger, so anger can be denied. Passive-aggressive behaviour may include non-verbal behaviour or body language that is irritating or offensive.
Personal Harassment - objectionable or unprofessional conduct or comment, directed towards a specific person, which serves no legitimate work purpose and has the effect of creating an intimidating, humiliating, hostile or offensive work environment and is not related to prohibited grounds (see Appendix A).

Protocol - is a document containing both a policy (i.e. principles, standards and responsibilities), procedure (i.e. a defined process for action or decision making framework) and/or guidelines. It is a written framework of procedures, principles and guidelines to follow in a given situation. Protocols include a statement of principles outlining the general philosophy behind the protocol and state the goals of the protocol.

Respect - To treat with dignity and courtesy.

Sexual Assault - Conduct of a sexual or indecent nature toward another person that is accompanied by actual or threatened physical force or that induces fear, shame, or mental suffering.

Sexual Harassment - one or a series of comments or conduct related to a person’s sex, sexual orientation that is known or ought reasonably be known to be unwelcome/unwanted, offensive, intimidating, hostile or inappropriate as defined in Section 7.1 of the Ontario Human Rights Code (see Appendix A).

Witness - a person identified by either the complainant or respondent who was present, observed, or heard the incident occurring.

5.0 Cross References
HHS HR-Harassment Protocol

6.0 External References

7.0 Developed By
HHS Values-Based Code of Conduct Steering Committee

8.0 In Consultation With
Representatives from the following stakeholder groups:

C.U.P.E.
Executive Team
Operations Committee
HHS lawyer
HHS staff groups
Leadership Forum
MAC
Medical Staff Association
This protocol is to be reviewed by the HHS Values-Based Code of Conduct Steering Committee consisting of representatives from the executive, medical staff, Organizational Effectiveness, Human Resources, all unions, and the Human Rights Specialist.

9.0 Approved By

HHS Board of Directors November 2005
HHS Values-Based Code of Conduct Resolution Process

Person displays inappropriate behaviour

Harassment issue?

NO

Individual* comfortable speaking to person?

YES

Direct communication with the person

Issue resolved?

YES

No further action

NO

Seek assistance then speak directly to person

Issue resolved?

YES

No further action

NO

Refer to HHS Harassment Protocol

Stage 2

Stage 3

Seek coaching from manager, Chief of Professional Practice or Practice Leader and implement actions

Issue resolved?

YES

No further action

NO

Stage 4

Manager response
Investigation, mediation, documentation

Issue resolved?

YES

No further action

NO

Stage 5

Progressive Discipline

* Individual (you)-observes or experiences the inappropriate behaviour

Individual is accountable for Stages 1, 2, 3

Manager is accountable for Stages 4 and 5
Vacation Entitlement for Residents
Postgraduate Medical Education

Scope: This policy is applicable to all Residents.

Definition:
Resident: For purposes of this policy, “Residents” refer to all Residents who are members of the Professional Association of Interns and Residents of Ontario (PAIRO). Clinical Fellows are not members of PAIRO and should check with their Department / Division regarding vacation entitlement.

Policy:

Vacation entitlement is four (4) weeks for all Residents. Once the vacation period is approved it may only be changed through subsequent negotiations with the appropriate individuals. Vacation time must be taken within the academic year, July to June. Vacation days will be prorated according to the Resident’s appointment for the academic year. The exception is vacation entitlement for pregnancy leave and / or parental leave, which are entitled to the full 4 weeks.

The Postgraduate Medical Education (PGME) Committee has drawn up the guidelines relating to vacations in keeping with the terms of the PAIRO-CAHO Agreement. The PGME Office’s role is to ensure that vacation requests are being managed in a fair and consistent manner:

1. Requests for vacation shall be submitted at least four (4) weeks before the proposed commencement of the vacation.

2. Certification examination requests will be given priority.

3. The PAIRO-CAHO agreement states that, “All vacation requests must be confirmed or alternative times agreed to within two weeks of the request being made.” It is important that timely communication between all parties take place, in order that the Resident receives timely confirmation of the vacation request. In exceptional circumstances where a vacation request cannot be confirmed within the two week period, the hospital department will communicate to the Resident, in writing, the reason for the delay. Where the hospital department rejects the vacation request, it will do so in writing and include the reasons; alternate times shall be offered by the department and agreed to by the Resident.

4. Vacations may be taken by Residents at any time; the timing of vacation may be delayed only where necessary, having regard to the professional and patient responsibilities of the hospital department for the time the vacation is requested.

5. Residents may arrange for their vacations to be taken in one continuous period or in one or more segments of at least one week in duration, provided professional and patient responsibilities are met. If a Resident is requesting a full rotation block, this request should be made well in advance, before the rotation schedules are drawn up. In essence, one full rotation block of vacation should be requested prior to the start of the academic year in order to enable the program to
accommodate such requests wherever possible. It should be recognized that missing a one full block of a mandatory rotation could impact on the resident’s program and should be discussed with the Program Director.

6. In addition to vacation entitlements, Residents shall be granted additional paid leave for educational purposes up to a maximum of seven (7) days per annum. It shall be consecutive if requested and shall not be deducted from regular vacation entitlements. Such leave may be taken at any time provided only that professional and patient responsibilities are met to the satisfaction of the hospital department head.

7. All Residents shall be entitled to the following recognized holidays:

   1. New Year’s Day
   2. Family Day
   3. Easter Friday
   4. Victoria Day
   5. Canada Day
   6. August Civic Holiday
   7. Labour Day
   8. Thanksgiving Day
   9. Christmas Day
   10. Boxing Day
   11. Floating Holiday

(Please refer to Medportal for the dates of each holiday)

Christmas/New Years: All Residents are entitled to 5 consecutive days off during Christmas Day and New Year’s Day. These 5 days account for Christmas Day, New Year’s Day, Boxing Day and two weekend days. Each resident must get either Christmas or New Year’s Day off.

8. Vacation entitlements do not carry over from one year to the next. Save for exceptional circumstances such as pregnancy/parental leave.

Note: Residents should be aware that time away from a rotation may impact on a Supervisor’s ability to fully evaluate the Resident and could lead to an Incomplete evaluation. Reference: PGME Policy and Procedures for the Evaluation of Postgraduate Students’ Performance, where it states: “As a guideline, a designation of “Incomplete” may be appropriate where the Student has not spent at least 50% of the required time on the rotation.”

http://www.fhs.mcmaster.ca/postgrad/documents/EvaluationpolicyMAY292009FINAL.pdf

Please refer to the PAIRO website http://www.pairo.org/ for details from the PAIRO-CAHO Agreement.

Reviewed November 2012
Approved PGEC November 21, 2012
Postgrad Vacation System
2 easy steps

1. Receive Email, Click the Link

Message from McMaster Postgrad

Steve Scott (medportal)

1 Resident needs you to approve their Vacation requests

Resident: Steve - Click to manage request
For Days: Wednesday June 22, 2011 - Friday June 24, 2011
Outstanding since: Wednesday May 11, 2011 08:08AM, 0 days ago

- No medportal account needed, @hhsc or @mcmaster work
- 1 single email with all requests daily, or weekly. Your inbox will not be clogged up by many requests.

2. Opens to a webpage (no login required) Click Approve or Reject

- Resident and Admin get emailed once complete (and anyone else you’d like notified)
- Completed requests can be auto-published to webeval
- Use the Calendar to see who else is off at anytime during the year
- Add Comments which are visible to the resident and administrator
ATTACHMENT 19

ELECTRONIC CALL SCHEDULES

PAIRO and CAHO agree to establish an Electronic Call Schedule Task Force, comprised of up to three PAIRO representatives, three CAHO representatives and potentially a participant from PGE COFM, to undertake a feasibility study for electronic call scheduling. The Task Force will have its initial meeting within one month of the ratification of the Collective Agreement, with the objective of completing the feasibility study within six months of ratification of the Collective Agreement. The Task Force will seek advice and input from hospital administrators, residency program directors, chief residents and others as required. If the Task Force concludes that electronic call scheduling is feasible, the parties will establish a representative pilot project(s) to commence within six months of completion of the feasibility study.

ATTACHMENT 20

LETTER OF UNDERSTANDING MAXIMUM CALL CALCULATIONS - IN HOSPITAL CALL

1. Where a resident is scheduled on a "one-month" rotation that is not 28 days, the following formula would apply, replacing the 7:28 call limitations. (The reference to numbers of days on service is specific to any individual resident, and reflects the number of working days subtracting, as the Collective Agreement requires in Article 16.3, any time the resident is away from the workplace for any reason, including vacation and leaves):

19-22 days on service - 5 calls
23-26 days on service - 6 calls
27-29 days on service - 7 calls
30-34 days on service - 8 calls
35-38 days on service - 9 calls

2. Where the rotations are more than one month in duration the maximum number of call periods would be determined by dividing the number of days the resident is on the service (i.e. minus vacation, leaves and other absences) by 4, and rounding up if the decimal is equal to or greater than .5, to get the maximum calls over that period. The maximum averaging period is 3 months (even where the rotation is longer than 3 months). However, there would be an overall limitation of 9 calls in any given calendar month, with calls correspondingly reduced in other months of the schedule to make up for this excessive call. For example, if over a 3 month period, a resident was on the service 90 days, 90 divided by 4 equals 22.5 which is rounded up to 23 call periods. However, if the resident were only on the service for 89 days, 89 divided by 4 equals 22.25 which would mean that the resident can only work 22 call periods.

3. As well, the hospitals agree that any and all occurrences of the employer exercising its right under Article 16.1 c(iii) - to schedule a resident for call without notice in exceptional and unexpected circumstances - will be documented by the employer and forwarded to the joint Provincial Call Monitoring Committee at the time it occurs.

ATTACHMENT 21

NON TRADITIONAL WORK HOURS

"The parties agree that the restrictions under the maximum hour/call provisions in the Collective Agreement on scheduling residents to work hours outside of daytime working hours, including call and shift limitations, may prevent implementation of some alternate scheduling arrangements. As a result, the parties agree that any proposal to schedule residents to work in a manner which violates the provisions of the Collective Agreement providing for night time or weekend call following daytime working hours or providing for shift work, may be implemented, but only following agreement by the parties following discussions at the Provincial Call Monitoring Committee (PCMC). Such new scheduling arrangements may be discontinued by either party with 90 days notice"
CALL STIPENDS

ATTACHMENT 24

Letter of Understanding Re: Implementation of Call Stipends

1. Call Stipends were implemented on July 1, 2006, pursuant to Article 23 of the Collective Agreement. Recognizing that some details of implementation may vary on a hospital by hospital basis, the parties nonetheless recognize the importance of some province-wide standards and rules, and a common and consistent approach in certain aspects of the implementation of the call stipends provisions. In this respect, the collective agreement specifically recognizes that the “hospitals have the right to implement reasonable rules to verify that residents are entitled to be paid the in-hospital call stipend for that call.”

2. As a result, the parties have now agreed to the following rules, which will be deemed to be reasonable in the context of the collective agreement:

   a) Call stipend claims must be submitted to the person(s) designated by the hospitals to receive such claims within 30 days following the end of the month in which the call was worked, save and except for circumstances reasonably beyond the control of the resident. Otherwise, untimely call stipends will not be paid.

   b) Any call stipend claims which have not been submitted as required by a) above will be paid, so long as they are submitted by July 20, 2007, and relate to call worked on or after April 1, 2007.

   c) Residents claiming entitlement to a call stipend, including conversion from a home call stipend to an in-hospital call stipend (or to a qualifying shift stipend) will not be required to obtain sign-off or confirmation from an attending or supervising physician. However, where a hospital demonstrates what it reasonably believes to be an excessive pattern of conversions within a program or service, it may implement reasonable monitoring and sign-off mechanisms for that program or service. Furthermore, PAIRO agrees to facilitate the hospital’s efforts in this regard, having regard to the obligation on residents, as physicians and as hospital employees, to conduct themselves in a professional manner.

   d) The hospitals agree to provide the information specified in Article 23.7 of the collective agreement in an excel spreadsheet or equivalent format, in the form that they have been accumulating the information to date for internal review and analysis, including information about any calls converted to in hospital call, but it is agreed that the information provided does not have to include the specific date on which each call or shift was worked, so long as PAIRO is able to determine the amount and kind of call worked by each resident on a monthly basis.

3. PAIRO and CAHO agree to continue to meet on a regular basis to review such other implementation issues or concerns as may arise in relation to the call stipend, with a view to resolving any such matters.

Signed at Toronto, this 29th day of June, 2007

For PAIRO                    For CAHO

ATTACHMENT 25

Letter of Understanding Re: Administrative Rules for Call Stipends

1. Clarification that the sub clause (c) of paragraph 2 of the initial Administrative Rules sign-off applies to individual incidents of call and that the monthly or quarterly sign off by both the Resident and Program Chief or Chief Resident or an administrator, scheduler, etc. would continue to be required where it had previously been required.

2. In circumstances where the sign off official is "not at work" in the same hospital or physical location as the resident, the resident can avoid the inconvenience of obtaining the appropriate signature by emailing their schedule to the sign off official and filing the email response confirming the call frequency within the 30 day deadline. In such circumstances, if the sign off official does not
provide to the resident a sign off /confirmatory email by the 30 day deadline the resident will not be paid unless the exception set out in 2a) of the initial Letter of Understanding applies (i.e. circumstances reasonably beyond the control of the resident) [For clarity "not at work" would capture situations where the sign off official is on vacation or an extended absence]. In any case, where the resident cannot obtain timely sign off but believes that the exception set out in 2 a) applies, the resident should submit their call stipend claim with an explanation for there being no sign off and should attempt to obtain the sign off as soon as possible.

3. Any resident that sent in the call information in a timely fashion pursuant to 2a) of the original settlement, but without the sign off, after the date of the original settlement but before the date of notification being provided of this clarifying settlement would not lose payments but would not be paid until the call pattern was verified. In these unique circumstances, the resident could accomplish this verification by signature of the Program Chief or Chief Resident (as appropriate) or by emailing the Program Chief (or administrator) or Resident (as appropriate) and receiving email response confirming the call frequency. A copy of such emails (provided by the resident within 30 days following notification of the signing of this document) will be deemed to be acceptable by the employer for this window of time (i.e. after June 28, 2007 but before October 11, 2007). This paragraph would only apply where signatures have previously been required - but not in new sites that have historically not needed signature - e.g. Mac, UWO.

4. The process described in Item 2 above can be used for non-CAHO hospital call frequency confirmations.

5. PAIRO and CAHO endorse the Hospital for Sick Children’s Call Frequency form as a template for use in those hospitals currently requiring sign off, absent any reference to the reasons for conversion.

6. PAIRO and CAHO hereby endorse the St. Mike's electronic call stipend and will mutually encourage and recommend its use to both residents and the hospitals.

7. OB Family Call Language: Where a family medicine resident carries a pager for obstetrics call to fulfill the requirements of the resident’s training program, the resident is not entitled to claim the home call stipend unless he or she is required or expected to respond to the page by providing medical care or attendance. Where the resident is required or expected to respond to the page, either the home or in hospital call stipend should be paid, depending on the time in attendance at a delivery, the amount of such call stipends not to exceed the maximums specified in the collective agreement. However, it is agreed that, where the resident is not required or expected to respond to the page, there should be no call stipend paid.

8. Where 24-hour weekend in-hospital call (or 24-hour statutory holiday call) is split into two shifts, only the resident working the night call shift will receive the in-house call stipend, unless the employer has already determined or determines in future that each resident will receive the Home Call Stipend. For clarity, the total amount paid for each 24-hour in-hospital call worked will be $103 (increased to $105).

SIGNED at Toronto, this 4th day of October, 2007.

For PAIRO                              For CAHO
"Alim Pardhan, MD"                  Robert Bass on behalf of
"Kevin Ramchandar, MD"           Mary Catherine Lindberg

CALL STIPENDS

Residents are entitled to receive a call stipend amount for in-hospital call, home call and qualifying shifts as outlined in 23.1, worked under the Collective Agreement, on the following terms:

23.1 There will be a call stipend payable in the amount of $105 for residents scheduled for in-hospital call, and $52.50 for residents scheduled for home call or for qualifying shifts (including emergency department and other night shifts worked under article 16.5). Qualifying shifts are only those shifts where one full hour worked on the shift occurs between midnight and 6 a.m.

23.2 A resident who is scheduled on home call but who works more than four hours in hospital during the call period, of which more than one hour is past midnight and before 6 a.m., is entitled to be paid the in-hospital call stipend. PAIRO agrees that the hospitals have the right to implement reasonable rules to verify that residents are entitled to be paid the in-hospital call stipend rate for that call.
23.3 The parties reaffirm that no resident is permitted to work call or shifts under the Collective Agreement in excess of the maximums permitted under the Collective Agreement. Subject to an Agreement by the parties respecting implementation of non-traditional work hours, no resident will be paid a call stipend for call worked in excess of the maximums permitted under the Collective Agreement, nor will residents working shifts receive more than 31 call stipend payments per quarter for qualifying shifts.

23.4 The call stipend will be paid no less frequently than on a quarterly basis, payable in the second pay period following the end of the quarter. Entitlement to the call stipend may be determined from examination by the hospitals of the monthly call schedules, or by such other measures as the hospital reasonably requires of the resident.

23.5 PAIRO will be provided, no less frequently than on a quarterly basis, with information concerning the number of call stipends paid to each resident, and the dates on which each call or shift was worked, by type of call stipend paid (i.e., the number of call stipend payments for in hospital call, for home call, and for qualifying shifts). This information will include each resident’s full name, service and hospital site.

23.6 For certainty, it is agreed that PAIRO dues will be deducted from call stipend payments, and that the call stipend shall continue in effect during negotiation for a renewal Collective Agreement, as provided in Article 4.3 of the Collective Agreement.

23.7 For further certainty, it is agreed that the terms and conditions of the call stipend are arbitrable pursuant to Article 4 of the Collective Agreement. However, for even further certainty, this does not include arbitration of the maximum call frequency provisions reflected in the call stipend provisions and provided for elsewhere in the Collective Agreement.

**ADMINISTRATIVE BONUSES**

17.1 A Chief Resident, for the purpose of administrative bonus, shall be defined as a resident who has responsibility for six (6) or more assistant residents. There will be only one (1) Chief Resident in a hospital department.

17.2 A Senior Resident for the purpose of administrative bonus, shall be defined as a resident who is the most senior in an approved specialty/subspecialty training program within a clinical department or in a department with no Chief Resident who supervises clinical clerks, or residents, or has the responsibilities for administrative or educational duties.

17.3 In a hospital or department without a Chief or Senior Resident for periods of six (6) months or longer, it is agreed that the PGY1 assigned administrative responsibilities will be paid the administrative stipend.

17.4 Administrative supplements shall be:

<table>
<thead>
<tr>
<th></th>
<th>Jan 1, 2009</th>
<th>July 1, 2009</th>
<th>Jan 1, 2010</th>
<th>July 1, 2010</th>
<th>Jan 1, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Resident</td>
<td>$3723</td>
<td>$3760</td>
<td>$3835</td>
<td>$3874</td>
<td>$3951</td>
</tr>
<tr>
<td>Senior Resident</td>
<td>$1862</td>
<td>$1880</td>
<td>$1918</td>
<td>$1937</td>
<td>$1976</td>
</tr>
</tbody>
</table>
Home Call Relief of Duties Notification Process

Home Call Conversion for Post-Call (PAIRO Article 16.4(c))
A resident on out-of-hospital call is required to be relieved of their duties when they are in either of the following situations:

- A resident is called into the hospital to perform duties between the hours of midnight but before 6 a.m.
- A resident is called into the hospital to perform duties for at least four (4) consecutive hours at least one (1) hour of which extends past midnight.

Should either of these two situations occur, the resident should contact the Chief Resident/Senior Resident on the service they are working to inform them that they will not be able to work the next day. The resident should also contact the office of the staff surgeon to whom they are assigned to whom they are assigned to inform them that they will not be working that day.

At the end of a converted call handovers should occur in person wherever possible, but if multiple sites are being covered a telephone conversation is the minimum standard for handover.

The staff surgeon’s office should contact the Program Coordinator of the Residency Program that the resident is rotating on to document the conversion of home call.

The Program Director/Site Director of the service on which the resident is rotating can perform such checks as are necessary to ensure that the work claimed actually occurred. If there is any discrepancy the Program Director will bring this up with the resident and the Program Director of the resident’s home program.
# TABLE OF CONTENTS

I. Preamble ......................................................................................................................... Page 2

II. Purpose .......................................................................................................................... Page 2

III. Scope ........................................................................................................................... Page 2

IV. Definitions ..................................................................................................................... Page 2

V. Evaluation Process ......................................................................................................... Page 3

  * Beginning of the rotation ................................................................................................. Page 3
  * During the rotation ........................................................................................................ Page 4
  * End of the rotation ......................................................................................................... Page 4

VI. Designation other than Satisfactory (Provisional Satisfactory, Unsatisfactory, Incomplete) ........................................................................................................... Page 6

  * Remediation Plan ........................................................................................................ Page 6
  * Meeting of the Evaluation Advisory Board ................................................................ Page 7
  * Remediation designates as Provisional Satisfactory, Unsatisfactory, or Incomplete .... Page 7

VII. Appeals .......................................................................................................................... Page 8

  * Level 1 Appeals – Program .......................................................................................... Page 8
  * Level 2 Appeals – Appeals Review Board ................................................................... Page 9
    * Meeting of the Appeals Review Board ................................................................... Page 9
    * Recommendations of the Appeals Review Board ................................................. Page 10
    * Decision of the Assistant Dean, Postgraduate Education ..................................... Page 10
  * Level 3 Appeals – Dean, Faculty of Health Sciences .................................................. Page 11

Appendix A: Suspension for Emergent Situations ......................................................... Page 13

Chart 1: Process for Evaluation ....................................................................................... Page 15
Chart 2: Designation other than Satisfactory (Provisional Satisfactory, Unsatisfactory, Incomplete) ........................................................................................................ Page 16
Chart 3: Appeals ............................................................................................................... Page 17
Chart 4: Appeals Level 1 .................................................................................................. Page 18
Chart 5: Appeals Level 2 .................................................................................................. Page 19
Chart 6: Appeals Level 3 .................................................................................................. Page 20
Chart 7: Emergent situation ............................................................................................. Page 21

April 30, 2009
I. PRE AMBLE

The purpose of evaluating students is, two fold:

1. to assess their individual strengths and weaknesses in order that they may further develop their strengths and address their weaknesses
2. and to ensure that the graduates of the program meet or exceed defined levels of competence.

Evaluations should be based on both program and rotation specific goals and objectives. They should be both formative and summative and not a one-time report card. Evaluation should encourage continuous quality improvement and form the basis for an educational prescription for the student. It should not be punitive in nature.

The process of evaluating students must be fair and based on objective tools. The process should ensure that evaluations are constructive, accurate, timely and delivered in a face-to-face manner. Evaluation is a process that requires active participation of the faculty and student in order to share information. Once an evaluation has occurred it is important that the documentation is both entered and reviewed in a timely manner by the faculty and student.

This policy takes effect July 1st, 2009 for all new and outstanding matters, which have proceeded under the previous policy.

II. PURPOSE

The purpose of this policy is:

➢ To provide minimum process and substantive standards for the evaluation and remediation, where necessary, of postgraduate students in order to ensure consistency with the standards of Faculty of Health Sciences, McMaster University, the requirements of the Royal College of Physicians and Surgeons of Canada (RCPSC) / the College of Family Physicians of Canada (CFPC) and the College of Physicians and Surgeons of Ontario (CPSO).

➢ To provide minimum process and substantive standards for an appeal of a decision made through the evaluation process in order to ensure objectivity, fairness and consistency of treatment among students.

III. SCOPE

This policy applies to all postgraduate students (Residents and Fellows) who are registered with the Postgraduate Medical Education Office, (collectively “Students”). All matters surrounding evaluation will fall within the jurisdiction of the Postgraduate Medical Education Office, Faculty of Health Sciences, McMaster University. Postgraduate Students do not have access to the University Senate process.

IV. DEFINITIONS

Clinical Supervisor:
The most responsible staff physician to whom the Student reports.

Clinical Teaching Unit (CTU) Director:
The staff physician who is responsible for the overall functioning of the teaching unit. (It is recognized that in some departments the CTU Director and the Clinical Supervisor may be the same individual.)

Program Director/Home Program Director:
The Program Director of the Student’s program who is the officer responsible for the overall conduct of the integrated residency program in a discipline, reporting to the head of the department concerned and to the Assistant Dean, Postgraduate Medical Education, for the Faculty.

Assistant Dean, Postgraduate Medical Education (or Postgraduate Dean):
The officer responsible for the overall conduct and supervision of postgraduate medical education within the Faculty, reporting to the Associate Dean (Education).

Dean, Faculty of Health Sciences
The officer responsible for all matters within the Faculty of Health Sciences.

Appeals Review Board (ARB):
Is an arm’s length body that adjudicates appeals and academic decisions that have been reviewed at the Program level (Level 1 Appeal). The ARB:

- Adjudicates and investigates on behalf of the Postgraduate Medical Education Office, Residency Program committees and/or the Assistant Dean, Postgraduate Medical Education concerning:
  - Level 2 appeals.
  - the dismissal, failure, suspension of postgraduate medical students.

Education Advisory Board (EAB)
Is an arm’s length body that assists the programs and residents on academic matters. The EAB:

- Acts on behalf of the Postgraduate Medical Education Office:
- Acts as an educational advisor for residents and programs.
- Considers the performance of any Student whose name has been referred to it by a Program Director, and/or Residency Program Committee or by the Assistant Dean, Postgraduate Medical Education.

V. EVALUATION PROCESS

Beginning of the rotation

1. The Clinical Supervisor or CTU Director should meet with the Student at the beginning of the rotation to discuss the evaluation process, and in particular, should discuss the following:
   a. delineate the Student’s role during the rotation;
   b. outline the duties and responsibilities expected of the Student;
   c. outline the goals and objectives of the program and rotation, with reference to the standards of the RCPSC or the CFPC;
   d. explain the structure and interrelationships of the health care team, where
appropriate; and
e. advise the student on what evaluation tools will be used in the evaluation process, the prescribed evaluation format particular to the Student’s home program, how the ITER (in-training evaluation report) is completed and the timing of evaluations (including on-going informal feedback, the mid-rotation evaluation and the ITER).

**During the rotation**

2. The Clinical Supervisor should provide regular ongoing informal feedback to Students during the rotation.

3. Normally, a mid-rotation evaluation is recommended; however, where concerns or deficiencies regarding a Student’s performance arise during a rotation, a formal mid-rotation evaluation must take place. The Clinical Supervisor should meet with the Student to discuss the concerns or deficiencies. This face-to-face meeting should occur as soon as reasonably possible during the rotation (generally within two weeks of the midpoint date) so that the Student has an opportunity to address and correct such concerns or deficiencies. A mid-rotation ITER will be completed and provided to the Student in a timely manner.

4. For rotations longer than 3 months the interval between written evaluations should be no longer than 3 months and a formal, documented mid-unit evaluation must take place.

**End of the rotation**

5. It is the responsibility of the Clinical Supervisor, and ultimately the Home Program Director, to ensure that an ITER is completed and submitted for each Student for each rotation.

6. In completing the ITER, the Clinical Supervisor should draw on the feedback of other members of the health care team; the Clinical Supervisor should synthesize all information (e.g., correspondence) received from the team about the Student’s performance during the rotation.

7. Within each domain and for each goal and objective on the ITER, there may be several levels of competence identified. However, the overall (summative) evaluation on the ITER should indicate one of the following designations:

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfactory</td>
<td>Student has successfully met the goals and objectives of the rotation</td>
</tr>
<tr>
<td>Provisional Satisfactory</td>
<td>Student has demonstrated significant deficiencies in one or more of the RCPSC/CFPC competencies identified in the rotation objectives, or any other requirement of the rotation, and that while such deficiencies require remediation, they are not so severe to necessitate the Student repeating the entire rotation; the Clinical Supervisor believes that the Student can satisfy the deficient rotation objective(s) or requirement(s) during other rotations.</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>Student has demonstrated significant deficiencies in one or more...</td>
</tr>
</tbody>
</table>
of the RCPSC/CFPC competencies identified in the rotation objectives, or any other requirement, and the Clinical Supervisor believes that the rotation objective(s) or requirement(s) can only be reasonably met by remediation and having the Student repeat the entire rotation. (For example, a designation of “Unsatisfactory” is appropriate and remediation is necessary where the deficiency is in the “Medical Expert” category of the rotation.)

<table>
<thead>
<tr>
<th>Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Incomplete” indicates that the Clinical Supervisor has been unable to properly and fully evaluate the Student because the Student’s time spent on the rotation was insufficient, for whatever reason, e.g. illness, extenuating circumstances etc. As the rotation is incomplete, time will have to be made up to fulfill the requirements of the rotation. As a guideline, a designation of “Incomplete” may be appropriate where the Student has not spent at least 50% of the required time on the rotation. Even where a designation of “Incomplete” is indicated, the Clinical Supervisor should complete the ITER in order to document the Student’s time spent in the rotation and the Student’s performance during that limited time.</td>
</tr>
</tbody>
</table>

8. Prior to the end of the Student’s rotation, the Clinical Supervisor should meet with the Student to discuss and review the completed ITER and all supporting documentation, which documentation is necessary to substantiate the ITER. Where a designation of “Unsatisfactory” or “Provisional Satisfactory” is indicated, the supporting documentation should include an identification of the Student’s deficiencies and, if appropriate, the Clinical Supervisor’s recommendation for remediation.

9. The Clinical Supervisor should sign (by written signature or electronically) and date the ITER and ask the Student to do the same. The Student should be advised that his/her signature does not imply agreement with the ITER but simply signifies that s/he has read it. The Student may add comments to the ITER, e.g. to indicate agreement or disagreement or to clarify specific points.

10. It is the responsibility of the Clinical Supervisor to ensure that the Home Program Director receives a signed copy of the ITER and all supporting documentation.

11. In exceptional circumstances where it is not possible for the Clinical Supervisor to meet with the Student prior to the end of the rotation, the Clinical Supervisor should attempt to meet with the Student as soon as possible thereafter. If the Clinical Supervisor and Student have not met within 10 working days after the

---

1 It is recognized that it is legitimate for a Program Director to inform the College of Physicians and Surgeons of Ontario or other authority that an unsatisfactory evaluation has been given. If an appeal is underway that should be indicated. If the results of the appeal are known then they must be indicated as well.

2 Students should be aware that time away from rotations (e.g., vacation, professional leave, etc.) exceeding one week per one month rotation period may interfere with the acquisition of the competencies outlined by the goals and objectives of the rotation. While ultimately, the PAIRO collective agreement regulates time allowed away from rotations, students/residents and faculty are advised to consider this when requesting or authorizing time away from the rotation.
end of the rotation, the Clinical Supervisor should proceed to send the Home Program Director a copy of the ITER and all supporting documentation, including any documentation which evidences the Clinical Supervisor’s failed attempt(s) to meet with the Student.

12. It is expected that a student will review his or her evaluation either on-line through Webeval or in paper format within 20 working days from the end of the rotation.

VI. DESIGNATION OTHER THAN SATISFACTORY
(PROVISIONAL SATISFACTORY, UNSATISFACTORY, INCOMPLETE)

1. In all cases, the Home Program Director and Student should meet as soon as reasonably possible to discuss and review the ITER and all supporting documentation. This may lead to discussion at the Residency Program Committee.

2. The Student may elect to accept or reject the designation. If s/he elects to reject the designation, s/he may appeal the designation at Level 1 Appeals – Program Level, in accordance with Section VII (Appeals).

Remediation Plan

3. If the Student accepts the designation, a Remediation Plan designed to address the Student’s deficiencies should be implemented as soon as possible.

4. The terms of the Remediation Plan shall be subject to the agreement of the Student, the Home Program Director and the Clinical Supervisor but should include:

   a. Nature of the Remediation Plan;
   b. A statement of the expected outcomes of the rotation;
   c. Identification of the areas of deficiency;
   d. Defined time frame for completion of the Remediation Plan;
   e. Specification of how the Remediation Plan will be evaluated; and
   f. Consequences of receiving a designation of “Unsatisfactory”.

5. The Home Program Director shall provide a copy of the ITER and Remediation Plan to the Education Advisory Board and to the Student’s file. The EAB will review the Remediation Plan and may or may not offer comments.

6. The Student and/or the Home Program Director may request the assistance of the Education Advisory Board in designing the Remediation Plan. Such requests should be made in writing to the Postgraduate Medical Education Office, outlining any specific concerns. The Postgraduate Medical Education Office will facilitate a meeting of the Education Advisory Board. (see below, Meeting of the EAB).

7. If the Student completes the Remediation Plan with a designation of “Satisfactory”, as determined by the Home Program Director, then the Student will proceed in the program and the Home Program Director will notify the Education Advisory Board of the outcome. The documentation surrounding the remediation will remain part of the Student’s file.
Meeting of the EAB

8. In the event that the program requests assistance of the Education Advisory Board (as noted in #6 above), the EAB shall review the past performance of the Student with reference to documentation presented by the Home Program Director and the Student. Additional information may be presented to the EAB at the time of the meeting.

9. The purpose of the meeting will be to gather information to assist the EAB in developing recommendations and strategies that will help address the Student’s issues. The Student will be offered the opportunity to invite an individual for support.

10. The Chair of the EAB shall ensure that the Assistant Dean, Postgraduate Medical Education, the Home Program Director and the Student are notified, in writing, of the EAB’s discussion and recommendations.

11. The Home Program Director and/or the Student may wish to discuss the recommendations made by the EAB, with the Assistant Dean, Postgraduate Medical Education.

Remediation is designated Provisional Satisfactory, Unsatisfactory, or Incomplete

12. If the Student completes the Remediation Plan with a designation of Provisional Satisfactory, Unsatisfactory or Incomplete, then the case would be reviewed by the Residency Program Committee. The Student may, at any time, elect to reject the designation, within the Appeal guidelines as outlined in the Level 1 Appeals – in accordance with Section VII.

13. The RPC should review and make one of the following recommendations to the Assistant Dean, Postgraduate Medical Education:

   a. the Student be allowed to continue in his / her normal program;
   b. the Student be allowed to continue in a modified program to be designed by the Student, the Home Program Director and the Clinical Supervisor, and approved by the Education Advisory Board;
   c. that the Student be dismissed from the program; or
   d. any other recommendation deemed by the Residency Program Committee to be just and reasonable in the circumstances.

   The Program Director will advise the Assistant Dean, Postgraduate Medical Education of the RPC’s decision, in writing.

14. In the case where the recommendation has been made that the Student be dismissed from the program, or any other recommendation from the Residency Program Committee, the Assistant Dean, PGME has the authority to request a meeting of the Appeals Review Board (ARB). The Assistant Dean, PGME, will advise the Student and the Home Program Director, in writing, of a decision to convene the ARB.
15. A meeting of the Appeals Review Board will be convened for the purpose of reviewing the case and making a recommendation to the Assistant Dean, Postgraduate Medical Education, of a course of action in respect of the Student’s continued participation in the program. (Refer to Level 2 Appeals - Appeals Review Board (ARB), page 9).

16. The Assistant Dean, Postgraduate Medical Education, may suspend the Student, without loss of pay, from all activities involving the care or investigation of patients, pending the findings and recommendations of the Appeals Review Board.

17. The Appeals Review Board will make written recommendations to the Assistant Dean, PGME and the Assistant Dean will make a decision based on those recommendations. (Refer to page 10, Decision of the Assistant Dean.)

VII. APPEALS

Level 1 Appeals – Program Level
(Within 15 working days after having become aware of the decision under appeal.)

1. A Student may submit an appeal, in writing, to the Home Program Director in respect of any process or substantive decision (i.e. decisions involving academic judgment or specialty specific skills) arising out of the Evaluation Process, including a decision to indicate a designation other than “Satisfactory” on the Student’s ITER.

All appeals submitted at Level 1 must include a written statement from the Student clearly stating the decision(s) under appeal, providing detailed reasons why the decision is thought to be incorrect or inaccurate, and the desired result. The Student must submit the appeal within 15 working days after having become aware of the decision under appeal.

2. Level 1 Appeals should consider both the procedure of the evaluation as well as the substantive content.

3. For decisions in respect of rotations within the Student’s specialty, the Student’s home program appeals process will apply. Other rotations may be arranged within McMaster teaching hospitals or at another academic centre to provide second opinions regarding specialty specific ability. This would be mutually agreed upon by student and program.

For appeals in respect of process and substantive decisions, if the appeal is denied, it may proceed to Level 2 Appeals – Appeals Review Board, in accordance with this Section VII.

4. For decisions in respect of rotations outside the Student’s specialty, the Home Program Director should consider the appeal and will consult the Clinical Supervisor and/or the Program Director of that rotation, along with other appropriate individuals, e.g., the CTU Director. If the appeal is denied, the

---

3 See Appendix A in respect of suspensions for “Emergent Situations”, such as situations involving danger to patient safety or lack of professionalism.

4 Students should contact their home program for details of its appeals process.
appeal may proceed to Level 2 Appeals – Appeals Review Board, in accordance with this Section VII.

5. *For Students completing a Pre-Entry Assessment Program (PEAP), an Assessment Verification Period (AVP), a Practice Ready Assessment (PRA), or clinical examinations (STACERs),* the sole remedy that may be granted following a successful appeal is the ability to repeat relevant components of the assessment or the clinical event, as applicable, one more time only. In these instances, if the appeal is denied at Level 1 (Program), the student has the option to appeal to Levels 2 and 3 however, the sole remedy remains - to repeat relevant components, one more time only.

6. The Chair of the Residency Program Committee shall ensure that a record of the meeting be kept, including any written submissions and the findings and recommendation of the Residency Program Committee concerning the matters before it. The Chair of the Residency Program Committee shall provide the Student with a written report of the findings and recommendations of the committee. A copy of the report will be sent to the Assistant Dean, Postgraduate Medical Education.

7. The Student shall have the right to appeal the recommendation of the Residency Program Committee, to Level 2 Appeals, for both process and substantive issues. The Student must submit the appeal within 15 working days after having become aware of the decision.

**Level 2 Appeals – Appeals Review Board (ARB)**

*Within 15 working days after having become aware of the decision under appeal.*

The ARB may be convened:

**Category 1**

By the Student - to submit an appeal in respect of a process and/or substantive recommendation denied at Level 1. Grounds of appeal may include medical, compassionate or extenuating circumstances, bias, inaccuracy or unfairness.

All appeals at Level 2 must be directed to the Postgraduate Medical Education Office, with a copy sent to the Home Program Director, and include a written statement from the Student clearly stating the recommendation(s) under appeal, providing detailed reasons why the recommendation at Level 1 is thought to have been incorrect, inaccurate or unfair, and the desired result. The Student must submit the appeal within 15 working days after having become aware of the recommendation under appeal.

**Category 2**

By the Assistant Dean, Postgraduate Medical Education - to review an adverse recommendation made by the Residency Program Committee.

On receipt of a Level 2 appeal, the Postgraduate Medical Education Office will convene a meeting of the Appeals Review Board at its earliest convenience to hear the appeal.

**Meeting of the Appeals Review Board (ARB)**

1. The Appeals Review Board shall review the past performance of the Student with reference to documentation presented by the Home Program Director and the
Student. All reports of the Education Advisory Board will be submitted. The Home Program Director and the Student shall be entitled to make written submissions to the Appeals Review Board. Additional information may be presented to the ARB in writing or orally through a party’s own testimony or other individuals.

2. The Student, with counsel if desired, and the Home Program Director will be invited to attend the meeting of the ARB, along with any other appropriate individuals, as determined by the Appeals Review Board, e.g. the Clinical Supervisor who completed the ITER.

3. The Student and the Home Program Director shall be entitled to make written submissions to the ARB.

4. The Chair of the ARB shall ensure that a record of the meeting be kept, including any written submissions and the findings and recommendations of the ARB concerning the matters before it.

5. The Chair of the Appeals Review Board shall ensure that the Assistant Dean, Postgraduate Medical Education, the Home Program Director and the Student are notified, in writing, of the ARB’s recommendation, reasons for the recommendation and remedy, if any.

Recommendations of the ARB

Category 1 - ARB convened at the request of the Student
Category 2 – ARB convened at the request of the Assistant Dean, PGME

For both Category 1 and 2 the Chair of the ARB may recommend one of the following:

1. the Student be allowed to continue in his / her normal program;

2. where the Student had been suspended in accordance with paragraph 10, page 7, that the suspension be lifted and the Student be allowed to continue in a modified program to be designed by the Home Program Director and approved by the Education Advisory Board;

3. that the Student be dismissed from the program; or

4. any other recommendation deemed by the Appeals Review Board to be just and reasonable in the circumstances.

The Chair of the ARB will ensure that the Assistant Dean, Postgraduate Medical Education, the Home Program Director and the Student are notified, in writing, of the ARB’s findings and recommendations.

Decision of the Assistant Dean, Postgraduate Medical Education

1. As soon as possible following receipt of the findings and recommendations of the ARB, the Assistant Dean, Postgraduate Medical Education, shall, at his/her sole discretion, decide to accept the recommendation of the ARB or to substitute any other course of action.

2. The decision of the Assistant Dean, Postgraduate Medical Education will be final in
substantive matters.

3. The Student shall have the right to appeal the decision of the Assistant Dean, Postgraduate Medical Education, to Level 3 Appeals, for process issues only. The Student must submit the appeal within 15 working days after having become aware of the decision under appeal.

Level 3 Appeals – Dean, Faculty of Health Sciences
(Within 15 working days after having become aware of the decision under appeal.)

1. A Student may submit a Level 3 appeal to the Dean, Faculty of Health Sciences in respect to any appeal of a process decision denied at Level 2. Grounds of appeal may include medical, compassionate or extenuating circumstances, bias, inaccuracy or unfairness. The Student must submit the appeal within 15 working days after having become aware of the decision under appeal.

2. The Student’s submission must include a written statement outlining the decision(s) under appeal, providing detailed reasons why the decision at Level 2 is thought to have been incorrect, inaccurate or unfair, and the desired result.

3. The Dean shall arrange for a hearing to be held in accordance with Faculty-approved procedures before the Faculty Postgraduate Tribunal, defined by the Faculty, as the final adjudicator of this appeal.

4. The three members of the Faculty Postgraduate Tribunal will be chosen from a pre-selected group of faculty and postgraduate students (refer to Terms of Reference for the Postgraduate Tribunal).

5. The Designate appointed by the Dean, Faculty of Health Sciences, will request the Postgraduate Medical Education Office to prepare a file consisting of the Student’s written evaluation reports, ITERs, other relevant reports and correspondence, and a summary statement of actions relevant to the appeal. The Deputy should ensure that the parties to the appeal (the Student and the Assistant Dean, Postgraduate Medical Education) have a copy of this file in reasonable time to prepare for the meeting to hear the appeal.

6. At any time throughout the process, the Tribunal may request documents from the Assistant Dean if the Tribunal finds that such documents are relevant to the proceeding.

7. The Postgraduate Tribunal has sole jurisdiction to hear and make a final adjudication on the appeal.

8. The Postgraduate Tribunal shall conduct itself in accordance with the principles of natural justice as maintained in the Statutory Powers Procedure Act. It is recommended that the Tribunal follow the procedures outlined in Appendix B, which are consistent with the Statutory Powers Procedure Act (Copies of the Statutory Powers Procedure Act are available in the University Secretariat, Room 210, Gilmour Hall).

9. The Postgraduate Tribunal shall give written notice of the decision, with reasons, to the student and to the other parties involved. This decision will be delivered as soon as reasonably possible following the conclusion of the hearing. The Postgraduate
Tribunal shall make one of the following decisions:

a. to uphold the appeal and grant the remedy sought by the Student;

b. to uphold the appeal and re-instate the Student at the appropriate stage of his/her Postgraduate program, with no remedy; or

c. to uphold the appeal and fashion any remedy deemed just and reasonable in the circumstances,

d. to deny the appeal and to require the Student to complete a Remediation Plan developed by the Postgraduate program with a designation of “Satisfactory” prior to being permitted to continue in the Postgraduate program; or

e. to deny the appeal and to require the Student to withdraw from the Postgraduate program.

6. The decision of the Postgraduate Tribunal is final. Postgraduate Students do not have access to the University Senate process. (Refer to McMaster University, Student Appeals Procedures, September 1, 2009; page 6, item (vii).)
Appendix A: Suspension for Emergent Situations

Emergent situations include the following:

- **Danger to patient safety** i.e., inappropriate and/or harmful clinical actions (e.g. improper technique, lack of judgment etc.). Refer to Guidelines re Patient Safety.
- **Lack of professionalism** i.e., inappropriate professional behaviours (e.g. sexual misconduct, blatant, inappropriate breaches of confidentiality, harassment, boundary issues etc.) Refer to the McMaster University, Postgraduate Medical Education, Guidelines on Professional Behaviour and Ethical Performance.

**Process:**

1. A Clinical Supervisor may make a decision to relieve a Postgraduate Student from clinical duties if there are grounds to show that patient care is likely to be adversely affected if the Student continues in the placement.

2. The Clinical Supervisor and/or Clinical Teaching Unit Director should recommend immediately to the Home Program Director that the Postgraduate Student be suspended.

3. The Home Program Director will investigate the situation. At the same time, the Program Director shall notify and consult with the Assistant Dean, Postgraduate Medical Education. The Assistant Dean, Postgraduate Medical Education, shall notify the Student, in writing, that s/he has been suspended, without loss of pay pending the investigation of the Program Director.

4. On receipt of the written report and supporting documentation, at the discretion of the Assistant Dean, PGME, the Assistant Dean shall conduct an investigation as required. The Assistant Dean has the authority to request a meeting of the Appeals Review Board (ARB). The Assistant Dean, PGME, will advise the Student and the Home Program Director, in writing, of a decision to convene the ARB.

5. The ARB will conduct a thorough review of the documentation. The ARB may wish to meet with appropriate individuals, including the Student. The Student will have the opportunity to seek clarification of the documentation presented and will have the right to request clarification as required and invite appropriate individuals that can support his/her case.

6. The recommendation of the ARB shall be one of the following:
   - i) the postgraduate Student shall be re-instated;
   - ii) the postgraduate Student be re-assigned to another similar rotation;
   - iii) a Remediation Plan shall be implemented; or
   - iii) the postgraduate Student shall be dismissed from the program.

7. The Chair of the ARB shall ensure that the Assistant Dean, Postgraduate Medical Education, the Home Program Director and the Student are notified, in writing, of the Appeals Review Board findings and recommendations.

8. As soon as possible following receipt of the findings and recommendations of the ARB, the Assistant Dean, Postgraduate Medical Education, shall, at his/her sole discretion, decide to accept the recommendation of the ARB or to substitute any other course of action. The decision of the Assistant Dean, Postgraduate Medical Education, including reasons for the decision shall be provided in writing to the Student and the Home Program Director with copies to the ARB and the Student’s file. The Student shall have the right to appeal the decision of the Assistant Dean, Postgraduate Medical Education, at Level 3 Appeals – Appeals Committee, in accordance with Section VII (Appeals).
Documents for Further Reference:

1. McMaster University, Postgraduate Medical Education, Guidelines on Professional Behaviour and Ethical Performance.

2. Guidelines re Patient Safety.

3. Terms of Reference Education Advisory Board.

4. Terms of Reference Appeals Review Board.

5. Terms of Reference Faculty Postgraduate Tribunal

6. Appendix B-Rules of Procedure for Faculty Postgraduate Tribunal

7. McMaster University Student Appeal Procedures
Chart 1: Evaluation Process

Clinical Supervisor

MEET WITH STUDENT
- To discuss goals and objectives
- Outline responsibilities/duties

MIDPOINT EVALUATION
- Concerns to be documented
- Discussed face-to-face
- Timely

FINAL EVALUATION
- Face-to-face
- Timely

On-going formal evaluation

PROVISIONAL
SATISFACTORY
SATISFACTORY
UNSATISFACTORY
INCOMPLETE
Chart 2: DESIGNATION OTHER THAN SATISFACTORY
(Refer to Section VI, page 5 for details)

- **PROVISIONAL SATISFACTORY**
  (remediation is within another rotation)
- **UNSATISFACTORY**
  (remediation requires a repeat rotation)
- **INCOMPLETE**
  (repeat rotation)

**Student and Program Director Meet to discuss Evaluation**

**AGREES**
A remediation plan is negotiated and agreed to.
Plan is sent to EAB FYI.

**TO EDUCATION ADVISORY BOARD**

**DISAGREES**
Student can appeal the evaluation in writing.

**APPEAL**
Refer to Chart 4 ARB

**REMEDIATION SATISFACTORY**

**|**

If remediation is anything but satisfactory, student may appeal.
Assistant Dean will review and may refer to ARB
Chart 3: APPEALS - OVERVIEW
(All appeals must be made within 15 working days after having become aware of situation)
(Refer to Section VII, page 7 for details)

**APPEAL**
- Resident submits appeal in writing to program

**LEVEL 1: PROGRAM**
- Academic issues
- Process issues
  - Resolved

**LEVEL 2: APPEAL REVIEW BOARD**
- Academic Issues
- Process Issues
  - Resolved

**LEVEL 3: DEAN’S TRIBUNAL**
- Process Issues only
  - DECISION FINAL
Chart 4: APPEALS LEVEL 1 (PROGRAM)
(within 15 working days after having become aware of situation)

**APPEAL**
- Resident submits appeal in writing
  - Academic Issues
  - Process

**RESIDENCY PROGRAM COMMITTEE**
Reviews and submits report

**STUDENT**

**Assistant Dean PGME**
Informed and may refer to ARB

**AGREES**
 Student can appeal in writing
 Refer to Level 2 (ARB)

**DISAGREES**

Chart 5: APPEALS LEVEL 2
(within 15 working days after having become aware of situation)

CATEGORY 1 – APPEAL
By Student
- Resident submits appeal in writing
  - Academic Issues
  - Process

APPEALS REVIEW BOARD
Recommendation

Assistant Dean
PGME

RECOMMENDATION
CAT 1: (APPEAL)
- Student continues in program
- Student continues modified program
- Student dismissed from program
- Or any other recommendations

RECOMMENDATION
CAT 2: (APPEAL) DECISION
- Student continues in program
- Student continues modified program
- Student dismissed from program
- Or any other recommendations

ASSISTANT DEAN
Reviews ARB’s findings and recommendation and makes decision
Assistant Dean then notifies Program and Student

STUDENT AGREES

STUDENT DISAGREES
Can appeal in writing
Refer to Level 3 Process only
Chart 6: APPEALS LEVEL 3 (DEAN’S TRIBUNAL)
(within 15 working days after having become aware of situation)

APPEAL
Resident submits appeal in writing
PROCESS ISSUES ONLY

Dean FHSc

PG TRIBUNAL

Decisions to uphold appeal
OR
Deny the appeal

Decision of Tribunal
FINAL
Chart 7: EMERGENT SITUATION – refer to Appendix A, page 11 for details

EMERGENT SITUATION
- Patient Safety
- Professionalism

Clinical Supervisor – decision to suspend Student. Clinical Supervisor/CTU Director to immediately notify Student’s Home Program Director.

PROGRAM DIRECTOR
Will consult/notify Assistant Dean, PGME

ASSISTANT DEAN
Will notify student in writing of suspension, pending urgent enquiry of ARB

APPEAL REVIEW BOARD
Recommends:
- Student reinstated
- Student reassigned to another similar rotation
- A remedial program implemented
- Student dismissed

STUDENT MAY APPEAL DECISION OF ARB to DEAN FHSc
The Ontario medical schools and MOHLTC support a system of improved flexibility in postgraduate medical education. As of July 1, 2010, all transfer requests are handled in accordance with the principles outlined in this document, and under local transfer policies in force at each Ontario medical school.

Transfers will be accommodated through funding from:

a) the usual local recoveries (e.g. vacated positions), and
b) additional funding provided each year by MOHLTC to improve flexibility in the system and support transfer requests. This funding of 23 additional years was originally granted in 2003 and has been maintained by the Ontario Ministry of Health on an annual basis as follows: McMaster: 4 years; NOSM: 3 years, Ottawa: 3.5 years, Queen’s: 3 years, Toronto: 5.5 years; Western: 4 years.

General Principles

The following general principles apply to all resident transfer requests:

- Wherever possible, transfers should not subvert the CaRMS Match.
- Discussions regarding transfer will remain confidential until such time as the resident consents to disclosure.
- PGM:COFM will determine on an annual basis whether there is a need to identify specific specialties that will be deemed in short supply and therefore will be preferentially accommodated during the transfer process.
- Overall, transfers should not significantly alter the distribution of residency position allocation across schools and within disciplines.
- Residents must be acceptable to the program to which they are seeking transfer.
- The second iteration of CaRMS is a route to change programs that residents may use outside of the regular transfer process.
- Capacity, funding, and other constraints may limit the availability of program transfers; it is therefore not possible to accommodate all requests.

Specific Principles

In addition to fulfilling the requirements of the general principles, the following specific principles apply:

- Each transfer request is unique and will be considered on its own merit; however priority will be given to transfers based on evidence of wrong career choice or demonstrated need, e.g. disability, health issues that prevent residents from completing their initial program, etc.
- Internal transfers transfer requests will be considered by each school after January 1st of each year.
- Prior to accepting a transfer position, the Resident must request a release from his/her current program. Program Directors will then determine whether the resident may be released by their home program.
Residents requesting a transfer to another Ontario school must initially approach the Postgraduate Medical Education Office at the resident's home school for management of the transfer request.

In most cases, intra-provincial transfers will be considered after the school's internal transfer process is complete. Intra-provincial transfer requests can be made to the PGME Office of the resident's home school after January 1st each year, but will not be approved until after the second iteration of the CaRMS Match.

Direct and equal funding year transfers are sought during the intra-provincial transfer process.

Final approval of any transfer lies with the Postgraduate Dean.

**PGY1 Transfers** (PGY1 covers the entire first 12 months of training)

- Residents must have at least 6 months of active training within the residency with ideally one block in the discipline from which they request transfer;
- Residents should have sufficient exposure to the discipline to which they are requesting transfer either in the last year of medical school or during their residency;
- Residents must be of similar aptitude to successful candidates through the CaRMS match by the receiving program, utilizing similar selection methods and rating systems where they are used; and,
- If the resident applied through CaRMS to the program that they wish to transfer into, that program should ordinarily have ranked them favourably.

**PGY2 or Higher Transfers**

- Transfers within the last six months of a program will not normally be accepted, except in cases in which the programs significantly overlap i.e. Family Medicine to Community Medicine.

The transferring resident is responsible for contacting the RCPSC or CFPC to have their prior postgraduate training assessed for credit towards the new program. Until notification has been received from the appropriate College, the resident will be registered at the lowest applicable PGY level to ensure adequate funds are available for a complete training path. The resident will be advanced, as appropriate, once the assessment notices have been received, accepted by the program and approved by the Postgraduate Dean.

**Inter-provincial and U.S. Transfer Requests**

Ontario Ministry of Health funded residents are free to seek transfer of residency programs outside Ontario schools, but funding is not transferrable/portable outside the province. Any resident in an Ontario school accepted for transfer must be officially released by his/her Program Director and a letter approving the release will be sent to the Postgraduate Dean at the receiving school.

Residents from other Canadian or U.S. medical schools are free to contact PGME Program Directors at Ontario medical schools directly regarding program capacity and transfer possibilities. Program Directors may review such transfer requests according to the “General Principles” outlined above, and may contact the Postgraduate Dean’s office regarding funding. Such requests will be considered after the internal, intra-provincial transfer request processes, and the 2nd iteration of CARMS are complete.

**Special Case**

A transfer request that does not meet the principles outlined in this document may be brought forward to PGM:COFM as a special case at the discretion of the Postgraduate Deans.
McMaster University: Transfer Guidelines for Residents

McMaster University, Postgraduate Medical Education supports and adheres to the “Principles for Transfers in Ontario Residency Programs”. The process outlined below is one route to transfer; the second iteration of CaRMS is another alternative (please refer to CaRMS website, second iteration: http://www.carms.ca/index.html

McMASTER PROCESS:

DEADLINE: is normally January 31 for all transfer requests.

TRANSFER REQUEST FORM: All Residents seeking transfer must complete this form and submit to the PGME Office. The form is available on medportal: http://postgrad.medportal.ca/, under “Policies and Procedures”

1. The Resident should make enquiries about the program that s/he is interested in; this may include seeking information from the PGME Office, talking to other residents and/or the Program Director of the program that s/he is interested in.

2. The Assistant Dean may wish to meet with the Resident to discuss the reasons for the transfer.

3. The Resident must meet the selection criteria of the program wishing that s/he wishes to transfer into.

4. The Resident may receive a conditional offer of acceptance into a program, contingent on their release from their current program. The Resident should meet with their current Program Director to request the written release.

5. The PGME Office is provided with the letter of offer and the letter of release.

6. All transfers are contingent on funding. If additional funding is required to facilitate the transfer McMaster has four extra funding years (the funding allocation may change from year to year – funding provided since March 2003). The Resident should contact the PGME Office regarding funding.

INTRA-PROVINCIAL TRANSFERS

1. The Postgraduate Medical Education office will communicate with the Resident seeking a transfer to another university and determine if s/he wishes to proceed with the intra-provincial process.

2. Direct and equal transfers are sought during this process.

3. Transfers for geographic reasons are considered lower priority.

4. Intraprovincial transfers will not be approved until after the second iteration of CaRMS.

Revised June 2010
Approved PGEC June 16/10
PG Policies/transfer FINAL
MOONLIGHTING POLICY

COFM policy
Moonlighting is defined as: Residents registered in postgraduate medical education programs leading to certification with the Royal College of Physicians and Surgeons of Canada or the College of Family Physicians of Canada who provide clinical services for remuneration outside of the residency program. Moonlighting has been more recently called “restricted registration for residents”.

The Ontario Faculties of Medicine does not support resident moonlighting. Moonlighting compromises postgraduate programs and undermines the educational environment.

McMaster Postgraduate Medical Education Policy on Resident Moonlighting

McMaster Postgraduate Medical Education (PGME) supports the COFM policy on Resident Moonlighting. It is recognized that McMaster PGME cannot restrict, from a practical point of view, those residents with an independent practice certificate but feel that this activity must not interfere with the training program. The program director should be informed by the resident of this activity so that s/he can monitor its effect on the resident as well as the program.

It is recognized that there is a manpower problem within health care in Ontario but it is not under the mandate of McMaster PGME to solve this problem. The McMaster Postgraduate Medical Education Program wishes to maintain an environment in which there is

1. a positive balance between education and service
2. a strong academic focus in our training programs
3. no confusion regarding the resident’s role in the clinical setting

Approved PGEC/November 26/05
POSTGRADUATE MEDICAL EDUCATION

Health and Personal Safety Policy

Table of Contents

Preamble ............................................................................................................................... Page 2
Purpose ................................................................................................................................. Page 2
Scope .................................................................................................................................. Page 2

PERSONAL SAFETY

Responsibility of the Postgraduate Trainee ................................................................. Page 3
Responsibility of the Residency Program and the PGME Office ................................. Page 3
Site Specific Protocol ........................................................................................................ Page 3
Faculty Protocol – Postgraduate Trainees identifying a breach of
Personal Safety or Security Breach ................................................................................ Page 4
Travel .................................................................................................................................. Page 4
Travel Outside North America ................................................................................................ Page 4

WORKPLACE ENVIRONMENTAL HEALTH AND SAFETY

OCCUPATIONAL HEALTH ................................................................................................ Page 5

If injury occurs while working in Hamilton teaching hospitals ....................................... Page 5
If injury occurs while working at a training site outside of the Hamilton area ............... Page 6
Resources Available ........................................................................................................ Page 6
Flowchart re “If injury occurs” ......................................................................................... Page 7
Appendix 1 re Follow-up ................................................................................................. Page 8
Appendix 2 – The Role of Residents during Medivac/Ambulance Transports ............... Page 9
Related Links ...................................................................................................................... Page 10
Preamble

Resident education must occur in a physically safe environment (Royal College of Physicians and Surgeons of Canada, standard A.2.5; College of Family Physicians of Canada).

The collective agreement between the Professional Association of Interns and Residents of Ontario (PAIRO) and the Council of Academic Hospitals of Ontario (CAHO) states, that residents are postgraduate trainees registered in university programs as well as physicians employed by the hospitals. The agreement states that the residents must have secure and private rooms with secure access between call room facilities and the service area; maximum duty hours are defined; uniforms and protective equipment standards; as well as access to and coverage for Occupational Health services.

McMaster University is committed to provide and maintain healthy and safe working and learning environments for all employees, trainees (including postgraduate trainees), volunteers and visitors. This is achieved by observing best practices which meet or exceed the standards to comply with legislative requirements as contained in the Ontario Occupational Health and Safety Act, Environmental Protection Act, Nuclear Safety and Control Act and other statutes, their regulations, and the policy and procedures established by the University. (President Peter George, 2008)

Purpose

• To demonstrate the commitment of Postgraduate Medicine, Faculty of Health Sciences’, to health, safety and protection of its postgraduate medical trainees.
• To minimize the risk of injury and promote a safe and healthy environment on the university campus and affiliated teaching sites
• To provide a procedure to report hazardous or unsafe training conditions and injury along with a mechanism to take corrective action.

Scope

• All Postgraduate Trainees – Residents and Clinical / Research Fellows
• Personal Health and Safety – may include, violent or harmful behaviour in patient or staff; damage to personal items; secure lockers; safe access routes from call room to service floor; secure call room doors; panic/emergency buttons in patient observation room; transportation home; access to personal vehicle in parking garage.
• Workplace and Environmental Health and Safety – e.g. hazardous material, indoor air quality, chemical spills, radiation safety
• Occupational Health – e.g., immunization policies, blood borne pathogens, respiratory protection
• Training outside of Canada
PERSONAL SAFETY

McMaster University, Faculty of Health Sciences strives for a safe and secure environment for postgraduate trainees to train in its facilities and training sites through maintenance of affiliation agreements. Affiliated hospitals are responsible for ensuring the safety and security of postgraduate trainees training and supervision in their facilities in compliance with their existing employee safety and security policies/procedures as well as the requirements outlined in the PAIRO-CAHO collective agreement.

It is expected that the Postgraduate Trainee, the Residency Program, the Postgraduate Medical Education Office will work together with the affiliated teaching hospitals and community training sites to ensure the personal safety of all Postgraduate trainees.

Responsibility

1. Postgraduate Trainee

It is the responsibility of the trainee to participate in required safety sessions, which include Workplace Hazardous Materials Information and Safety (WHMIS), Fire Safety (as required), etc. and abide by the Safety codes of the designated area where s/he is training. This includes dress codes, particularly as they relate to safety.

The Postgraduate trainee must report any situation where personal safety is threatened (see Faculty Protocol below).

2. Residency Program and the Postgraduate Medical Education Office

It is a responsibility of each Residency Program and the Postgraduate Medical Education Office to ensure that appropriate educational safety sessions are available to all Postgraduate Trainees eg., generic WHMIS and safety training. In addition to WHMIS, the Residency Program must ensure that there is an initial, specialty, site-specific orientation available to the Postgraduate trainee.

It is the responsibility of the Residency Program to ensure that individual clinics or practice settings develop a site specific protocol to deal with:

- patient(s) who may represent a safety risk and policies
- working alone
- working in isolated areas or situations e.g., medivac transports (See Ontario Guidelines re: the Role of Residents during Medivac/Ambulance Transports – Appendix 2)
- or any other situation that may be a safety issue to the Postgraduate Trainee.

The protocol must be communicated to the Postgraduate Trainee at the beginning of the rotation.

The Postgraduate Medical Education Office will work, in conjunction with the affiliated Hamilton teaching hospitals to ensure that hospital areas are in compliance with the requirements as outlined in the PAIRO-CAHO collective agreement.

Site Specific Protocol

The protocol should include the following:

- identify potential risks to the Postgraduate Trainee
include how the Postgraduate Trainee would alert the supervisor if they felt at risk during an encounter, identification of potentially problematic patients at the beginning of the encounter, so they could be monitored, etc.

A supervisor* or co-worker must be present:

(a) while the Postgraduate Trainee is seeing a patient after hours in clinic. This would not apply if the patient is being seen in an emergency room / hospital based urgent care clinic, nursing home and hospice.
(b) When the Postgraduate Trainee does home visits.
(c) At the end of office hours if the Postgraduate Trainee is still with patients.

* The supervisor as defined by the Occupational Health and Safety Act – “a person who has charge of a workplace or authority over any worker.” It can be a physician (including another Postgraduate Trainee), midwife, nurse practitioner or social worker depending on the encounter.

Faculty Protocol
Postgraduate Trainees identifying a personal safety or security breach:

2. If a Postgraduate Trainee identifies a personal safety or security breach, it must be reported to their immediate supervisor and/or Program Director to allow resolution of the issue at the local level.

3. If a Postgraduate Trainee feels that his / her own personal safety is threatened, s/he should seek immediate assistance and remove themselves from the situation in a professional manner. The Postgraduate Trainee should ensure that their immediate supervisor has been notified and/or Program Director, as appropriate.

4. The Postgraduate Medical Education Office (905-525-9140, extension 22118) is available for consultation during regular work hours, particularly if the Program Director is not available. If an issue arises after regular office hours, where the clinical supervisor and/or Program Director may not be available, contact Security of the institution where the Postgraduate trainee is based.

Travel

If, in the residents’ estimation, it would not be safe to travel because of weather, the resident may elect not to attend their academic half day, clinic, etc., but must inform the appropriate people as soon as possible in a professional manner.

If travel between sites, in remote areas, is more than 300 km., the Resident may be provided with one day of travel time (post call day not included) between sites.

Training Outside North America

Postgraduate Trainees must complete the Field Trips and Electives Planning and Approval process when planning to do an elective outside of North America to ensure compliance with standards and best practices for the safety of all Postgraduate Trainees.

WORKPLACE ENVIRONMENTAL HEALTH AND SAFETY
(eg. hazardous material (biological or chemical agent named in the Occupational Health and Safety Act), indoor air quality, chemical spills)

OCCUPATIONAL HEALTH
(e.g., immunization policies, blood borne pathogens, respiratory protection)

Both McMaster University and its employees are jointly responsible for implementing and maintaining an Internal Responsibility System directed at promoting health and safety, preventing incidents involving occupational injuries and illnesses or adverse effects upon the natural environment.

The University is responsible for the provision of information, training, equipment and resources to support the Internal Responsibility System and ensure compliance with all relevant statutes, this policy and internal health and safety programs. Managers, Supervisors, Deans, Directors, Chairs, Research Supervisors are accountable for the safety of postgraduate trainees who work/study within their area of jurisdiction. Postgraduate trainees are required by University policy to comply with all University health, safety and environmental programs such as Workplace Hazardous Materials Information and Safety (WHMIS). (excerpt from Peter George 2008)

The Faculty of Health Sciences and the teaching hospitals each are responsible for ensuring that postgraduate trainees are adequately instructed in infection prevention and control as it relates to communicable diseases.

The Faculty and the teaching hospitals will provide an introductory program on routine practices / standard precautions, infection prevention and control that is consistent with current guidelines and occupational health and safety. In addition, the Faculty and the teaching hospitals will inform postgraduate trainees as to their responsibilities with respect to infection prevention and control and occupational health and safety.

Affiliated teaching hospitals are required to comply with the Communicable Disease Surveillance Protocols for Ontario Hospitals developed under the Public Hospital Act, Regulation 965. Compliance with these Protocols requires the hospitals, in liaison with the University’s academic programs, to provide instruction in infection prevention and control and occupational health and safety. Refer to Policy regarding Communicable Diseases and Occupational Health for Applicants to and Trainees in Undergraduate and Postgraduate Medicine - http://www.fhs.mcmaster.ca/postgrad/ (See Policies)

The Faculty Postgraduate Medical Education Office collects the immunization data on all Postgraduate Trainees on behalf of the teaching hospitals.

If an injury occurs while working, the injury must be reported as follows (Refer to chart 1 on page 7)

- During daytime hours, while working at one of the Hamilton teaching hospitals: (e.g. Hamilton Health Sciences, St. Joseph’s Healthcare)

  The Postgraduate Trainee should go to the Employee Health Office at any of the teaching hospitals. An incident form will be provided by the Employee Health office to the Postgraduate Trainee.

  Reporting: All trainees are encouraged to submit a copy of the incident form to their home program for notification. The home program will send a copy to the Postgraduate Medical Education Office for University records. Non-Ministry of Health funded trainees: (e.g., foreign sponsored Residents and all Clinical Fellows *) must submit a copy of the incident form to the Postgraduate Medical Education Office, in order for the PGME Office to notify their
sponsor and ensure proper follow-up. Occupational Health & Safety Office of the University will be notified.

Postgraduate Medical Education Office (PGME)
Phone: 905-525-9140, ext. 22118  Fax: 905-527-2707

➢ During the evening or on the weekend at one of the Hamilton teaching hospitals or if working at a training site outside of the Hamilton area

The Postgraduate Trainee should go to the nearest Emergency Room and **identify themselves as a Resident / Clinical Fellow and request to be seen on an urgent basis.** The Postgraduate Trainee must complete, within **24 hours**, an Injury/Incident Report (forms should be available in the local Emergency Room).

In Ontario - The injury/incident form should be submitted to the hospital **where the injury took place**. That hospital will be responsible for administering the claim.

Reporting is the same as indicated above.

* The Postgraduate Trainee’s employer administers the claim. All Ministry of Health funded Residents are paid through Hamilton Health Sciences. There are a variety of different funding sources for externally funded Residents and Clinical Fellows. In these instances, HHS would not administer the claim or be responsible for follow-up. **Important: Please see Appendix 1 for information on follow-up.**

**Resources available:**

Postgraduate Medical Education Office
Phone: 905-525-9140, ext. 22118  Fax: 905-527-2707

Faculty of Health Sciences Safety Office
Phone: 905-525-9140, ext. 24956  Fax: 905-528-8539
Health Sciences Centre, Room 3N1C
1200 Main Street West, Hamilton, Ontario  L8N 3Z5

Hamilton Health Sciences
Human Resources – Employee Health
Telus Sourcing Solutions
120 King Street West, Suite 200
Hamilton, Ontario
Phone: 905-387-9495, ext. 63900

St. Joseph’s Healthcare
Occupational Health and Safety Services
50 Charlton Avenue East
Hamilton, Ontario L8N 4A6
Phone: 905-522-1155, ext. 33344
Chart 1: Workplace Environmental Health & Safety

Postgraduate Trainees – Injury/Incident

Working at HHS/SJH
Daytime Hours

Employee Health
HHS/SJH
(Incident form to be completed)

HHS (or employer)
Injury/incident report
within 24 hours
copy to PGME

Working At:
• Training site outside Hamilton
• Evenings or weekends at
  HHS/SJH

NEAREST EMERGENCY
ROOM
PG Trainee should identify
themselves as a Resident/Clinical
Fellow and that they need to be
seen on an urgent basis

Injury/Incident report within 24
hours to the hospital where the
injury took place
Copy to PGME

Residents funded by
Ministry

Residents/Clinical Fellows funded by
their Government/Sponsor

Residents/Clinical Fellows funded by
McMaster University

Clinical Fellows funded by
McMaster University

Hamilton Health Sciences

PGME

To sponsor
Appendix 1

Notes:

1. Residents* who are funded by the Ministry of Health and Long Term Care and are seen at the Employee Health office at St. Joseph’s Healthcare, SJH will submit the incident report to HHS and the Postgraduate Medical Education Office. HHS will follow up with the Resident re Workplace Safety and Insurance Board (WSIB) and follow-up. Hamilton Health Sciences is the paymaster for Ministry of Health funded residents.

2. Residents* and Clinical Fellows who are funded by a foreign sponsor and are seen in Employee Health - the Postgraduate Medical Education Office will forward the incident report to the sponsor for handling. The individual trainee is responsible for follow-up with their family physician.

3. Clinical Fellows who are funded through McMaster University, McMaster University will handle WSIB.

* Residents refers to individuals proceeding to certification examination, ie. not for Clinical Fellows; who are funded through a variety of sources, but often paid through the University.
Appendix 2

POSTGRADUATE EDUCATION COMMITTEE OF COFM (PGE:COFM)
Dec. 9, 1999

EDUCATIONAL PRINCIPLES
RE: THE ROLE OF RESIDENTS DURING MEDIVAC/AMBULANCE TRANSPORTS

1) In many programs, participation in patient transport is a valuable learning experience for residents.

2) There must be clear educational objectives underlying the resident's participation in patient transport.

3) Residents must have appropriate training with demonstrated competency in the circumstances relevant to the transport experience.

4) Communication and supervision between the resident and his/her designated supervising physician must be available at all times.

5) Resident well-being should be considered in all transports.

Note: On occasion residents/fellows may be confronted with a situation for which they are not sufficiently trained. It is expected that they, like other physicians, will deal with such situations as practicing professionals to the best of their ability.
Quality Improvement (QI)

Quality Improvement (QI) offers a proven methodology for improving care for patients, residents and clients. In this guide, QI refers to a QI team, working towards a defined aim, gathering and reviewing frequent measures and implementing change strategies using rapid cycle improvements. QI science provides tools and processes to assess and accelerate efforts for testing, implementation and spread of QI practices. This guide is an introductory resource to support practitioners of QI in Ontario.

This guide was prepared by the Ontario Health Quality Council (OHQC).

We gratefully acknowledge the Institute for Healthcare Improvement and the OHQC Guide Reviewers and Contributors.

© 2009 Ontario Health Quality Council
# Table of Contents

1. Introduction .................................. 1
   1.1 What is quality in healthcare? ................. 1
   1.2 What is QI? .................................. 2
   1.3 What can you expect from this guide? .......... 3

2. QI Project Cases ............................... 5
   2.1 Introduction .................................. 5
       2.1.1 QI Case #1 — Reducing falls in a rehabilitation hospital .... 6
       2.1.2 QI Case #2 — Reducing surgical site infections at an acute care medical centre ... 7
   2.2 Observations on the case studies ............... 8
   2.3 Summary ..................................... 8

3. QI Model for Improvement ...................... 9
   3.1 Introduction .................................. 9
   3.2 Assembling the team: Who should be on the QI team? ....... 10
   3.3 Defining the aim: What are we trying to accomplish? ....... 10
   3.4 Identifying the measures: How will we know if a change is an improvement? ............. 11
       3.4.1 Types of measures ....................... 11
   3.5 Defining the changes: What changes can we make that will result in improvement? ....... 11
       3.5.1 Change ideas ............................ 12
       3.5.2 Change concepts ....................... 12
   3.6 Implementing rapid cycle improvements: What are Plan-Do-Study-Act (PDSA) cycles? ....... 13
       3.6.1 Testing and implementing change ideas ............... 13
       3.6.2 Laying the groundwork before conducting PDSA cycles ............... 13
       3.6.3 Step-by-step instructions for conducting PDSA cycles ............... 14
       3.6.4 Using PDSA ramps ........................ 15
       3.6.5 The project charter: Pulling it all together ............... 16

4. QI Methods & Tools ............................ 17
   Introduction: What are our quality problems? ....... 17
   4.1 Tools that help you understand and analyze your process ....... 17
       4.1.1 Fishbone/Ishikawa/Cause & Effect Diagrams ............... 18
       4.1.2 Five Whys .................................. 20
       4.1.3 Process Mapping ........................... 21
       4.1.4 Check Sheets ............................ 26
       4.1.5 Pareto Charts ............................ 27
   4.2 Measurement ................................. 30
       4.2.1 Creating a Measurement Plan ............... 30
       4.2.2 Mini-surveys ............................ 31
       4.2.3 Sampling ................................. 31
   4.3 Demonstrating your impact ....................... 32
       4.3.1 Run charts ............................... 33
       4.3.2 Control charts ........................... 35
   4.4 Conclusion .................................. 41

Appendix A — Examples of change concepts ............... 43
Appendix B — Resources ................................ 45
Appendix C — References ............................. 46
Appendix D — Sample worksheets ....................... 47
1 INTRODUCTION

Quality Improvement (QI) is a proven, effective way to improve care for patients, residents and clients, and to improve practice for staff. In the healthcare system, there are always opportunities to optimize, streamline, develop and test processes, and QI should be a continuous process and an integral part of everyone’s work, regardless of role or position within the organization.

The Ontario Health Quality Council (OHQC) has developed this guide to give healthcare teams and organizations in Ontario easy access to well-established QI tools. We provide examples of how to adapt and apply these tools to our Ontario healthcare environments.

Our objective is for the guide to help you start and support QI initiatives.

1.1 WHAT IS QUALITY IN HEALTHCARE?

Ontarians share a common vision of a high-performing health system. We want a publicly funded system that is accessible, effective, safe, patient-centred, equitable, efficient, appropriately resourced, integrated and focused on population health. These are the nine attributes of a high-quality health system identified by the OHQC.

<table>
<thead>
<tr>
<th>ATTRIBUTES OF QUALITY</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessible</td>
<td>People should be able to get the right care at the right time in the right setting by the right healthcare provider.</td>
</tr>
<tr>
<td>Effective</td>
<td>People should receive care that works and is based on the best available scientific information.</td>
</tr>
<tr>
<td>Safe</td>
<td>People should not be harmed by an accident or mistakes when they receive care.</td>
</tr>
<tr>
<td>Patient-centred</td>
<td>Healthcare providers should offer services in a way that is sensitive to an individual’s needs and preferences.</td>
</tr>
<tr>
<td>Equitable</td>
<td>People should get the same quality of care regardless of who they are and where they live.</td>
</tr>
<tr>
<td>Efficient</td>
<td>The health system should continually look for ways to reduce waste, including waste of supplies, equipment, time, ideas and information.</td>
</tr>
<tr>
<td>Appropriately Resourced</td>
<td>The health system should have enough qualified providers, funding, information, equipment, supplies and facilities to look after people’s health needs.</td>
</tr>
<tr>
<td>Integrated</td>
<td>All parts of the health system should be organized, connected and work with one another to provide high-quality care.</td>
</tr>
<tr>
<td>Focused on Population Health</td>
<td>The health system should work to prevent sickness and improve the health of the people of Ontario.</td>
</tr>
</tbody>
</table>

**LINK!** For more information about the nine attributes of a high-quality health system, see the OHQC’s annual reports at [www.ohqc.ca](http://www.ohqc.ca).
1.2 WHAT IS QI?

When we say QI, we are referring to the science of QI developed over the past few decades by Dr. W. Edwards Deming and Dr. Joseph Juran, and promoted by Dr. Donald Berwick of the Institute for Healthcare Improvement (IHI). QI is based on an understanding of the system in which we function, the complexity of dealing with people, the variation of outcomes created by the system and the use of knowledge to influence those outcomes. QI initiatives are applied by local staff and leaders who are proficient at problem solving and managing group dynamics, and involve the people being served in the design of how care is delivered.

A QI initiative has the following features:

- Local interdisciplinary teams empowered and trained to set goals for improvement
- Teams identifying causes of problems, barriers to quality or flaws in system design that lead to poor quality
- Teams trying out different ideas for improving how care is delivered in multiple brief, small experiments of change
- Teams conducting frequent, targeted measurement of quality in a way that gives them instant feedback on whether the changes they are testing are heading in the right direction

What is healthcare QI?

“A broad range of activities of varying degrees of complexity and methodological and statistical rigour through which healthcare providers develop, implement and assess small-scale interventions, identify those that work well and implement them more broadly in order to improve clinical practice.”

QI science provides tools and processes to assess and accelerate QI efforts through testing, implementation and spread. But QI is more than tools; it is a culture of continuous Quality Improvement. QI uses structured improvement methods and models, including the Model for Improvement, Six Sigma and Lean. It makes use of incremental change and a testing model called Plan-Do-Study-Act (PDSA). And it acknowledges that successful QI requires leadership from senior management and clinicians, an appropriate and supportive culture, and people trained in group processes and change management. All of this needs to be aligned with the organization’s strategic objectives, and with the quality management systems in place.

A QI project, like any other project, has a beginning, a middle and an end. The QI team has a defined aim, gathers relevant data and develops and tests changes as it works towards implementing successful improvements. It is assumed that any QI project fits into an organizational framework that supports and promotes Continuous QI (CQI).

1 The Ethics of Improving Health Care Quality & Safety: A Hastings Center/AHRQ Project, Mary Ann Baily, PhD, Associate for Ethics & Health Policy, The Hastings Center, Garrison, New York, October, 2004

2 Quality Improvement Guide
A successful QI project team uses structured improvement models and methods similar to those discussed in this guide. In some cases, the QI project team is a group of people already working together as a clinical team. However, it is most common for a team to come together as a unique group, with each member selected to represent a particular aspect of the process being addressed. However it is constituted, the QI project team works together to achieve the project aim.

1.3 WHAT CAN YOU EXPECT FROM THIS GUIDE?

This guide is intended as a jumping off point in the QI journey, and provides foundational knowledge necessary to start improvement projects. The OHQC has developed modules focused on various change concepts and strategies, including access and efficiency. We will develop additional modules to address other crucial elements that support the success and spread of Ontario QI initiatives.

This document is divided into three main sections:

• **QI Project Cases** — An introduction to structured improvement methods and examples of projects
• **QI Model for Improvement** — More details about the structured improvement model, including discussions and examples related to each component
• **QI Methods and Tools** — Examples of methods and templates of tools presented in the earlier sections of the guide

**LINK!**

QI teams can optimize quality by improving access and efficiency. The OHQC has developed two modules, focused on access and efficiency, to accompany this guide. They are available on the OHQC website at [www.ohqc.ca](http://www.ohqc.ca).
2.1 INTRODUCTION

Ideas for healthcare improvements come from countless sources. Leaders may identify a gap related to organizational objectives, or teams may identify opportunities based on provider and patient/client experiences. In some cases, quality monitoring issues, public reporting on quality indicators or new best practice guidelines serve as an impetus for QI projects.

This guide presents a methodology — the Model for Improvement — and tools that a team can use to make improvements. QI practitioners have found this methodology and these tools useful over the past 20 years. Keep in mind that the Model for Improvement is a framework for making improvements with others. Within each project, a number of tools and techniques may be useful on their own or in combination with others. No two projects will be identical in their tests of change or the tools and techniques they use, but common situations in which specific tools might be useful. The right tool at the right time can help construct a great outcome.

There are two QI case studies in this section. These are not actual cases, but amalgams of real case studies. In the sidebar next to each story, we provide a list that refers the reader to the key QI tools and techniques relevant to the team’s QI journey.
2.1.1 QI Case #1

REDUCING FALLS IN A REHABILITATION HOSPITAL

<table>
<thead>
<tr>
<th>QI PROJECT ACTIVITIES</th>
<th>RELEVANT QI TOOLS AND TECHNIQUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>The new director of a rehabilitation hospital (RH) pointed out that the organization’s falls rate was much higher than that of other similar organizations. After exclamations that RH’s patient population was much sicker, managers and clinicians finally agreed that the rate was too high. RH held a facility-wide “Falls Fair” to educate staff about the common causes of patient falls and prevention. Unfortunately, the falls rates for the next three months remained high. Looking at the data, the organization saw that the unit with the highest number of falls cared for relatively mobile residents with mild to moderate dementia who were getting stroke rehab. RH created a QI team made up of a manager, a registered nurse (RN), an aide and a rehabilitation therapist.</td>
<td>Starting out</td>
</tr>
<tr>
<td>At the first team meeting, everyone had a lot to say about the causes for the large number of falls. They questioned why things happened as they did and had many suggestions for change. Working with the team leader, the team’s facilitator described IHI’s Model for Improvement and rapid cycle improvements. At their second meeting, the team worked to clarify their project aim, and then set an improvement target of 40%. To find out more about falls at RH, the team looked at a year’s worth of incident data and the reason for each fall. Much has been written about falls reduction, with evidence from successful programs, and this offered many good improvement ideas. The team decided to implement a falls risk assessment process to prevent falls.</td>
<td>Brainstorming, Fishbone Diagram (Section 4.1.1)</td>
</tr>
<tr>
<td></td>
<td>Five Whys (Section 4.1.2)</td>
</tr>
<tr>
<td></td>
<td>Model for Improvement: Aim (Section 3.3)</td>
</tr>
<tr>
<td></td>
<td>Model for Improvement: Measure (Section 3.4)</td>
</tr>
<tr>
<td></td>
<td>Check Sheet (Section 4.1.4)</td>
</tr>
<tr>
<td></td>
<td>Model for Improvement: Change (Section 3.5)</td>
</tr>
<tr>
<td>The first task was to find examples of falls risk assessment tools. One tool developed by another organization with a similar patient population seemed promising, and the team planned a small test. Jane, a rehabilitation therapist, tried the tool with two cognitively aware patients to see how long it took and whether the tool seemed workable. Jane presented her results: with a few tweaks, she thought the tool could be used for the majority of the patients in the unit. Jim, the RN, worked with a unit nurse to see how she felt about using the tool. After several more PDSA cycles, the assessment process began to work. Within two weeks, test results were available on almost all patients in the unit. The team then started working on how the risk assessment could trigger a falls prevention protocol that included multiple strategies (strength/balance training, medication review, simple changes such as bed height adjustments, etc.).</td>
<td>Model for Improvement: PDSA (Section 3.6)</td>
</tr>
<tr>
<td></td>
<td>Process Mapping (Section 4.1.3)</td>
</tr>
<tr>
<td>Over the following months, the team continued to test changes, measure results and build changes into the procedures and orientation for new staff. After nine months, the falls rate had reached and sustained the team’s target. RH celebrated its successes and continued the work to maintain and increase the improvement. Administration supported the spread of the new changes and procedures, and encouraged other units to test them.</td>
<td>Continuous Quality Improvement</td>
</tr>
</tbody>
</table>
### 2.1.2 QI Case #2

**REDUCING SURGICAL SITE INFECTIONS AT AN ACUTE CARE MEDICAL CENTRE**

<table>
<thead>
<tr>
<th>QI PROJECT ACTIVITIES</th>
<th>RELEVANT QI TOOLS AND TECHNIQUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>In a presentation to the board of an acute care medical centre (ACMC), the centre's</td>
<td>Starting out</td>
</tr>
<tr>
<td>surgical site infection (SSI) rate was reported to be higher than that of comparable</td>
<td></td>
</tr>
<tr>
<td>organizations. The board asked senior leaders to address the problem. In response,</td>
<td></td>
</tr>
<tr>
<td>the CEO signed up ACMC to participate in the national Safer Healthcare Now! (SHN)</td>
<td></td>
</tr>
<tr>
<td>initiative and asked the chief of surgery to organize the effort to reduce SSI rates.</td>
<td></td>
</tr>
<tr>
<td>The chief of surgery and perioperative care director assembled a QI team that</td>
<td></td>
</tr>
<tr>
<td>included the head of orthopaedics, two operating room (OR) nurses, another</td>
<td></td>
</tr>
<tr>
<td>orthopaedic surgeon, an infection control coordinator and a QI facilitator. The team</td>
<td></td>
</tr>
<tr>
<td>looked at infection rates by service and considered which one might have the best</td>
<td></td>
</tr>
<tr>
<td>chance of early success.</td>
<td></td>
</tr>
<tr>
<td>The team discussed the SHN bundle of interventions, including appropriate use of</td>
<td></td>
</tr>
<tr>
<td>prophylactic antibiotics, appropriate hair removal, maintenance of post-op glucose</td>
<td></td>
</tr>
<tr>
<td>control and post-op normothermia. The team's facilitator described IHI's Model for</td>
<td></td>
</tr>
<tr>
<td>Improvement and rapid cycle improvements, and the team developed a clear project</td>
<td></td>
</tr>
<tr>
<td>aim — to reduce the hospital's SSI rates by 50% within one year. They decided to</td>
<td></td>
</tr>
<tr>
<td>begin by focusing on one intervention with a specific type of surgery, rather than</td>
<td></td>
</tr>
<tr>
<td>all surgical procedures: the use of prophylactic antibiotics in hip and knee</td>
<td></td>
</tr>
<tr>
<td>replacements. These were procedures performed by the two surgeon team members.</td>
<td></td>
</tr>
<tr>
<td>They needed baseline data to know how many patients actually received their</td>
<td></td>
</tr>
<tr>
<td>pre-operative antibiotics within one hour before surgery, so they used a one-page</td>
<td></td>
</tr>
<tr>
<td>form that they found on the SHN website. For one week, the OR nursing supervisor</td>
<td></td>
</tr>
<tr>
<td>ensured that the form was completed for all hip and knee replacement patients. The</td>
<td></td>
</tr>
<tr>
<td>team learned that only 36% of patients received their antibiotics within 60 minutes</td>
<td></td>
</tr>
<tr>
<td>of their surgery, with no consistency about who ordered, administered or recorded this</td>
<td></td>
</tr>
<tr>
<td>task. When the team flowcharted the actual antibiotic administration process steps,</td>
<td></td>
</tr>
<tr>
<td>mapping who did what and when, they saw that the anaesthetists played a role, so</td>
<td></td>
</tr>
<tr>
<td>one was asked to join the QI team.</td>
<td></td>
</tr>
<tr>
<td>The team brainstormed ideas for how to make the process more consistent. One idea</td>
<td></td>
</tr>
<tr>
<td>was to amend the pre-operative order set to include the recommended antibiotics and</td>
<td></td>
</tr>
<tr>
<td>dosage. The anaesthetists could take responsibility for administering and recording</td>
<td></td>
</tr>
<tr>
<td>the antibiotics within 60 minutes prior to incision. The two surgeons agreed to test</td>
<td></td>
</tr>
<tr>
<td>the amended pre-operative order set for the next week. The anaesthetist agreed to</td>
<td></td>
</tr>
<tr>
<td>speak to colleagues who were scheduled for those cases and ask them to administer the</td>
<td></td>
</tr>
<tr>
<td>antibiotics in the pre-operative holding area.</td>
<td></td>
</tr>
<tr>
<td>The following week, the team studied the data. It showed that more than 95% of the</td>
<td></td>
</tr>
<tr>
<td>patients received their antibiotics within 60 minutes of their surgery. They</td>
<td></td>
</tr>
<tr>
<td>presented their experience to the OR quality committee, which recommended that the</td>
<td></td>
</tr>
<tr>
<td>other surgical services try the same approach.</td>
<td></td>
</tr>
<tr>
<td>Quality Improvement Guide 7</td>
<td></td>
</tr>
</tbody>
</table>
2.2 OBSERVATIONS ON THE CASE STUDIES

Although the two case studies are different and did not follow exactly the same path, there are commonalities between them and with most other successful QI projects:

- QI projects are team-driven
- QI work starts with a strong aim statement that the team may revisit after they understand their problem better
- Teams decide what measures they should collect
- Teams identify strategic areas for improvements or key change ideas
- Teams use a series of PDSA cycles to develop and test small changes on a small scale in different contexts; after building confidence that the changes do lead to improvement, teams implement the changes
- Management and teams work to spread improvements to other parts of the organization, if appropriate

The PDSA cycles, supported within the Model for Improvement, provide structure for changes and the learning process. The next chapter discusses the Model for Improvement and how to use it.

2.3 SUMMARY

The QI journey has multiple phases, with each step building on the previous one. For example, you must analyze your current processes before you can implement improvements. Furthermore, all settings can use QI tools to map and understand their processes, and using the right tools will allow the team to work smarter rather than harder.

The PDSA cycle is a way to keep QI initiatives small and manageable and, at the same time, to generate momentum by creating early successes. Building on each cycle of PDSA, for each category of change being tested, helps teams achieve short- and long-term goals.

The rest of this guide offers an introduction to start you on your way. We recommend that you talk to colleagues, share ideas and share stories so that everyone can learn from each other’s experiences.
3.1 INTRODUCTION

The Model for Improvement has two basic components: the first addresses three fundamental questions, and the second is the rapid cycle improvement process comprising a series of PDSA cycles to develop, test and implement changes for improvement (see Figure 1).

The Model for Improvement is a simple but powerful framework for structuring any QI project. QI teams that use this model have the highest chance of success. This chapter focuses on the components of the model.

![Diagram of the Model for Improvement](image)

**FIGURE 1** | The Model for Improvement
3.2 ASSEMBLING THE TEAM: WHO SHOULD BE ON THE QI TEAM?

To be successful, a QI initiative needs the support of the whole team — from the receptionist and clerk to managers, providers and others. That said, although the team needs to be inclusive, inviting a maximum of 10 people to join keeps it manageable. Identify a leader who is respected and has credibility among peers. Be open to including constructive skeptics who have legitimate concerns but are open to change. Sometimes, teams choose to include a member from outside their service group because of an interdependency with other parts of the system. For example, the emergency department may consider someone from the lab, or primary care may consider a local diabetes education representative.

Consider the following checklist when forming a team:

- Have we included a representative from each discipline that touches the work?
- Have we considered including non-registered staff who also support the work?
- Have we identified a team leader?
- Do we have a physician champion on the team?
- Should we include a constructive skeptic on our team?
- Do we have someone with QI skills to facilitate our progress?
- Should we consider an external stakeholder?

TIP! The people who do the work need to be the ones to change the work.

3.3 DEFINING THE AIM: WHAT ARE WE TRYING TO ACCOMPLISH?

Every QI initiative needs a clearly defined aim. The aim should answer the question, “What are we trying to accomplish?” It should also have the following characteristics:

- **Clear** — To create a clear plan, you need a clear aim.
- **Time-specific** — Set a goal date for when you want to accomplish your aims.
- **Stretchable** — To support your aim, establish a stretch goal. Aiming for small, incremental change (e.g., moving from below average to average, or changing by 10%) does not represent a real breakthrough in quality, and may not justify the investment in people’s time to participate. To help you set a stretch goal, look at what leaders in the field are doing. If there are no clear examples of leading practices, aim to decrease suboptimal care, adverse events or undesirable wait times by half as a first step.
- **Providing real value** — Ensure that your aim has real value to your patients and clients.

**EXAMPLE**

**Poor aim statements:**

“Through the implementation of an electronic medical record (EMR), our chronic disease patients will get better care.”

or

“We will create a truly interdisciplinary team to provide specialized patient-centred care for those with chronic conditions.”

**Good aim statements:**

“We will improve management of diabetes patients served at the Brown Street Clinic. By May of next year, we will aim to increase the percentage of patients meeting their targets for A1C and blood pressure from 35% to 75%.”

or

“We will reduce wait times for new patients referred to our specialty clinic from 53 days to 26 days. We will accomplish this within seven months.”
3.4 IDENTIFYING THE MEASURES: HOW WILL WE KNOW IF A CHANGE IS AN IMPROVEMENT?

Measures tell you whether the changes you make are actually leading to tangible improvement. They give you concrete evidence to support your case for change, and they also increase buy-in for the initiative.

3.4.1 Types of measures

QI initiatives should use three types of measures to help create targets and achieve their aims:

- **Outcome measures** are the “voice of the patient or customer” and capture system performance. In other words, what are the results? Examples include infection rates, wait times and falls rates.
- **Process measures** are the “voice of the workings of the system.” In other words, are the steps in the processes that support the system performing as planned? Examples include bundle compliance rates, supply and demand and high-risk patient intervention rates.
- **Balancing measures** look at a system from different perspectives. In other words, are changes designed to improve one part of the system causing new problems in other parts of the system? Examples include staff satisfaction, financial implications and restraint rates.

3.5 DEFINING THE CHANGES: WHAT CHANGES CAN WE MAKE THAT WILL RESULT IN IMPROVEMENT?

**Change ideas** are specific changes that focus on improving specific steps of a process. They are practical ideas that can be readily tested.

**Change concepts**, on the other hand, are the broader principles that provide general direction for planning improvements.

*For example,* “balance supply and demand every day” is a change concept. Scheduling pre-booked appointments on days of the week that have the least demand is a change idea.
3.5.1 Change ideas

QI teams may have ideas about what changes need to be made. It is important to tap into the wisdom of the group when considering possible areas for improvement.

First, identify all the different ideas for addressing a problem or improving care by:

• Asking the team for ideas  
• Seeking best practices from elsewhere  
• Creating process maps or fishbone diagrams to identify where problems are occurring and potential solutions  
• Considering generic change concepts (a general approach to improving quality) and then brainstorming about how to adapt/apply these ideas in a local setting

Second, narrow down the list of ideas to the changes that are most likely to result in improvement. Using measures to understand current processes will help to identify the changes the team should explore further.

3.5.2 Change concepts

Many change concepts offer improvement opportunities to healthcare:

• Lean focuses on change concepts to reduce waste  
• Six Sigma focuses on change concepts to improve the reliability of a process  
• Advanced access change concepts focus on balancing supply and demand for health services  
• Efficiency change concepts promote flow within health services

Here are some examples of change concepts, along with change ideas that a QI team can use to apply the change concepts:

<table>
<thead>
<tr>
<th>CHANGE CONCEPT</th>
<th>CHANGE IDEAS RELATED TO THE CHANGE CONCEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove constraints</td>
<td>Arrange for the provider’s assistant administer a screening survey and supply educational handouts, freeing up the provider to see more clients</td>
</tr>
<tr>
<td>Use visual cues</td>
<td>Place a visible sticker above the bed of patients/residents who are at high risk for pressure ulcers to trigger staff to carry out interventions</td>
</tr>
<tr>
<td>Have contingency plans</td>
<td>Develop a vacation scheduling plan to ensure that supply is able to meet anticipated demand</td>
</tr>
</tbody>
</table>

See Appendix A for examples of Change Concepts
3.6 IMPLEMENTING RAPID CYCLE IMPROVEMENTS: WHAT ARE PLAN-DO-STUDY-ACT (PDSA) CYCLES?

3.6.1 Testing and implementing change ideas

This section describes tools that help QI teams test and refine change ideas, and then implement them more broadly.

Once you have identified possible QI change ideas, test each of them thoroughly using a quick succession of small tests, and trying different variations and combinations of ideas. Use the PDSA cycles and ramps (described in detail in Section 3.6.3 and 3.6.4) to implement and assess the change, and to keep the team and project on track. After analyzing the results, spread successful changes to other parts of the organization.

PDSA cycles offer the most robust approach for improvements, because what seems to be a cutting-edge practice in one place may not work well somewhere else. It may have to be adapted to your environment, since every organization has a different mix of skills, people, equipment and policies. Also, the patients and healthcare consumers that an organization serves will vary in age, culture, language, education and socioeconomic status.

Trying to change a system all at once can generate resistance. We often fear change, are skeptical about the benefits and are attached to old ways of doing things. Small tests of change can be a low-risk way to try new ideas that people might be hesitant about at first. They can demonstrate the benefits of a new initiative and encourage buy-in.

Furthermore, any change may have unintended consequences. Small tests of change can help uncover undesirable effects early so the QI team can modify or abandon a change idea.

3.6.2 Laying the groundwork before conducting PDSA cycles

Before you start to conduct PDSA cycles:

1. Organize your change ideas into groups, each of which represents a similar notion or approach to change, or change concept
2. Decide which change ideas are high-priority and should be tested first (use the system analysis tools described in Section 4.1 to help identify priorities)
3. Identify different ways each change idea could be implemented

Now you are ready to start your PDSA cycles.
3.6.3 Step-by-step instructions for conducting PDSA cycles

You can use PDSA cycles to develop change ideas, test small-scale changes and implement changes across your area and organization.

Follow these steps to conduct a PDSA cycle:

**Step 1** PLAN

State the purpose of the PDSA — are you developing a change idea, testing a change or implementing a change?
What is your change idea?
What indicator(s) of success will you measure?
How will data on these indicators be collected?
Who or what are the subjects of the test?
How many subjects will be included in the test and over what time period?
What do you hypothesize will happen?

**Step 2** DO

Conduct the test.
Document any problems and unintended consequences.

**Step 3** STUDY

Analyze the data and study the results
Compare the data to your predictions.
Summarize and reflect on what was learned.

**Step 4** ACT

Refine the change idea, based on lessons learned from the test.
Prepare a plan for the next test.

**TOOLS**

You can find a full-sized copy of the PDSA Worksheet template, pictured here, in the sample tools section of this guide. You can also download the latest template from www.ohqc.ca.

**TIP!**

Remember to document all PDSA cycles. This is important to keep track of changes that led to an improvement and will enable you to annotate run charts — a graphical way of tracking your data, described in the next chapter.
3.6.4 Using PDSA ramps

Each change idea requires a series of PDSA cycles to test it — possibly first with one patient/client or exam room, expanding to two or three patients/clients or rooms, and then expanding to a larger group of patients/clients or rooms. This process of using a series of PDSA cycles to test an idea is called a PDSA ramp. The QI team can implement PDSA ramps one after the other or simultaneously.

In Figure 2, a community health centre is trying to improve care for people with diabetes. The QI team is considering three change concepts represented by each of three PDSA ramps. The first tests a change idea to improve self-management; the second tests a change idea for a diabetes patient/client registry; and a third tests a change idea for a reminder system for routine diabetes tests and follow-up visits.

Along the “patient/client self-management” ramp, the team might try a series of PDSA cycles to test giving patients/clients copies a clinical care checklist at each visit. This would involve giving one patient/client a copy of his/her self-management checklist at each visit, seeing whether the patient/client uses that information to improve self-management and asking for patient/client feedback on the checklist. The next cycle might involve two or three patients/clients, again assessing the impact on their self-management and asking for feedback, and so on, until patients/clients agreed the checklist was user-friendly, and it was shown to support self-management for a defined group of patients/clients.

**FIGURE 2**  |  Example of a Community Health Centre Trying to Improve Diabetes Care
3.6.5 The project charter: Pulling it all together

A QI project charter documents your aim and describes your QI initiative. Specifically, it sets out the purpose, scope, measures and targets for success. It identifies the key members of the QI team and specifies the time and resources to be invested, as well as the potential payoff. A clear project charter provides focus and promotes success.

QI is consistent with key elements of project management, as well as good business practices. It addresses problems that are important to the organization, promotes cost avoidance and ensures high-quality service that increases patient/client and provider satisfaction. Healthcare settings can promote the organizational spread of their improvements by documenting the information outlined in the project charter so the benefits of the improvement project are clearly articulated.

Dr. Deming’s philosophy is that “by adopting appropriate principles of management, organizations can increase quality and simultaneously reduce costs (by reducing waste, rework, staff attrition and litigation while increasing customer loyalty).”

---

2 Dr. W. Edwards Deming, Dr. Deming’s Management Training, April 27, 1998. www.dharma-haven.org/five-havens/deming.htm
INTRODUCTION: WHAT ARE OUR QUALITY PROBLEMS?

The first step in planning a QI initiative is to analyze your processes and understand the problems.

A process is a series of connected steps or actions to achieve an outcome. It has a start point and an end point. A process has a purpose and function of its own, but it cannot work entirely by itself. Rather, it interacts with the system as a whole. To improve a process, you must refine and optimize the steps in that process, making it more efficient.

There are a variety of QI methods and tools that are relevant at different times during a project or to meet specific needs. For example, there are tools that help you understand and analyze your process, as well as tools that show the impact of your changes using graphical and statistical methods.

4.1 TOOLS THAT HELP YOU UNDERSTAND AND ANALYZE YOUR PROCESS

QI science offers a variety of tools to help identify the source of quality problems and focus improvement efforts. Each tool has its own purpose, and it is important to select the right tool for each analysis. The following table lists the QI tools described in this chapter and when to use them.

<table>
<thead>
<tr>
<th>TOOL</th>
<th>SECTION</th>
<th>WHEN TO USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishbone/Ishikawa/ Cause &amp; Effect Diagrams</td>
<td>4.1.1</td>
<td>To brainstorm about the main causes of a quality problem, and the sub-causes leading to each main cause</td>
</tr>
<tr>
<td>Five Whys</td>
<td>4.1.2</td>
<td>To drill down deeper to get to the root cause of a problem</td>
</tr>
<tr>
<td>Process Mapping</td>
<td>4.1.3</td>
<td>To understand all the different steps that take place in your process; a fundamental tool for any QI project</td>
</tr>
<tr>
<td>Check Sheets</td>
<td>4.1.4</td>
<td>To collect data on your quality problem and identify the most important source of the problem</td>
</tr>
<tr>
<td>Pareto Charts</td>
<td>4.1.5</td>
<td>To plot your defects, or causes of defects, graphically</td>
</tr>
</tbody>
</table>

TOOLS

The tools described in this section are available as templates at www.ohqc.ca, where you can also find examples and further explanations.
4.1.1 Fishbone/Ishikawa/Cause & Effect Diagrams

The Fishbone Diagram, also known as an Ishikawa Diagram or Cause & Effect Diagram, is a simple tool that can be used to brainstorm and map out possible causes of a quality problem. A Fishbone Diagram (see Figure 3) is an important first step, because many QI teams jump into trying to fix one cause without assessing other possible causes.

**FIGURE 3** | Sample Fishbone/Ishikawa/Cause & Effect Worksheet

**Step-by-step instructions**

1. Put the name of the quality problem (the effect) in the box at the far right of the diagram.
2. To the left of this box, draw a central line (the spine), and from this central line draw diagonal lines (fishbones) representing different groupings of causes of the problem. For example, some teams use the five Ps (patients/clients, providers, policies, processes and procedures, and place/equipment); some use the six Ms (machine, method, materials, measurement, man and Mother Nature); and some use the four Ss (surroundings, suppliers, systems and skills). Pick groupings that make the most sense for your organization and problem.
3. Ask team members to identify different causes and list them along the appropriate diagonal line or grouping.
4. Team members may take any cause and draw a line and more branches off the line to describe other factors that contribute to the cause.
After deciding on the major groupings, allow plenty of opportunity for group creativity in identifying different causes. Encourage teams to consider all arms of the diagram, and not to focus too much attention on only one or two categories of causes. This is brainstorming, and it is best not to discuss the ideas during this part of the activity.

Once the Fishbone Diagram is complete, the team can start reviewing it to understand and analyze the cause(s) of the problem (or effect). The QI team can also use the Fishbone Diagram to document ideas they may not address initially, but want to consider in the future.

**Process-style Fishbone Diagram**

Depending on your setting, you may find it helpful to use the Fishbone Diagram to analyze a particular process or service. In that case, you can use the process-style variation (see Figure 4):

1. Identify some key processes used to deliver a service where there is a quality concern.
2. Plot these processes in a horizontal sequence.
3. Draw diagonal lines from each process.
4. Ask team members to identify problems that arise at each step or process and plot them along each diagonal line.

**Example of Process Style Ishikawa Diagram**

In this process-style Fishbone Diagram, we have mapped the process from registration to physician assessment.

![Process-style Fishbone Diagram](image-url)
4.1.2 Five Whys

The Five Whys is a simple brainstorming tool that can help QI teams get to the root causes of a problem. For a problem you have identified (either using the Fishbone Diagram or Process Mapping), ask “why” questions to drill down to the root causes. This tool allows teams to move beyond obvious answers and reflect on less obvious explanations.

**Step-by-step instructions**

1. State the problem you have identified as a strategic problem to work on.
2. Start asking whys related to the problem. Like an inquisitive toddler, keep asking why in response to each suggested cause.
3. Ask as many whys as you need in order to get insight at a level that can be addressed (asking 5 times is typical).

The Five Whys is a strategy that is often used to further explore an issue identified using another tool, such as a Fishbone Diagram or Process Mapping. Guard against using the five ‘why’ question alone in order to guard against a narrow focus or bias.

---

**The Five Whys at Work**

*A diagnostic lab was consistently running late, keeping patients waiting and having to pay staff overtime. They used a process style Fishbone Diagram to get some context, They discovered from a defect check sheet that the main cause of overall delay was the fact that about identified that 55% of patients were late for appointments. They then used the Five Whys to get at the actual cause.*

Why are patients always late? They can’t find parking. Why can’t they find parking? They don’t realize that parking is difficult in this area. Many don’t know that there is a parking area behind the building next to us, so they end up parking far away and walking. Why don’t they know about the parking near the lab? We don’t mention it in our appointment letters or when we book appointments on the phone. Why don’t we let them know? … Maybe we should!

*Based on this analysis, the lab revised its appointment letters and the booking clerk makes a point of discussing parking with all patients. As a result, 90% of patients are now on time, they receive services quickly and are more satisfied, and the lab is operating more efficiently.*

---

**TIP!**

It is recommended that you create a Fishbone Diagram first, and then use Whys to dig into the causes that the QI team believes are most important. Drill into the specific causes where you can make a change.
4.1.3 Process Mapping

A Process Map, also known as a flowchart, outlines all the different steps in a process — for example, all the steps that a practice or clinic takes to deliver a particular kind of service. Process Mapping helps QI teams identify problems that can be fixed. It is a fundamental tool that should be used with all QI initiatives because it gives the team clear insight into its processes. If the team cannot agree on where the problems occur, data should be collected to support each argument.

QI teams should start with a high-level Process Map (with five to twelve steps). They may then choose to go into greater detail on any particular set of processes where problems are believed to be the greatest, and generate a more detailed Process Map.

TOOLS

A Process Mapping worksheet is available at www.ohqc.ca.

Step-by-step instructions

1. Assemble a group to work on the Process Map. Include representatives of every type of provider who contributes significantly to the service. Include users and/or patients.
2. Use a neutral facilitator.
3. Agree on the first and last steps or activities — the start and end points that will be mapped.
4. Focus on mapping the steps or activities that account for 80% of what’s happening. (Don’t waste time on the exceptions.)
5. Map the actual — not the ideal — process.
6. Write each process identified on a post-it note and display it on a white board. (You may want to specify who does the process and where.)

If key team members are not able to meet together to build the Process Map, try this alternative:

1. Post a white board with processes partially mapped in a location providers pass through frequently (e.g., a lunch or staff room).
2. Invite providers to use post-it notes to add missing parts of the process. If someone disagrees with how part of a process is mapped, he or she can post an alternative set of processes below.
3. Leave the board up for a set period of time (e.g., one day or one week).

Different types of Process Mapping

There are several different types of Process Mapping:

- **Detailed** — the most common kind of Process Map
- **High-level** — the fastest, simplest and least detailed Process Map
- **High-low (Top-down)** — adds depth to a high-level Process Map, but without detailed mapping
- **Swim lane** — shows what different functions/people do in a detailed Process Map
Each type of Process Mapping frames the process a little differently. To decide which map to use, you need to understand how you need to visualize your process based on your particular needs during a project. Sometimes a high-level Process Map is all you need. You may opt to create detailed or swim lane Process Maps on subsets of your process only when you need them. Resist the desire to map all parts of your process in detail!

1. Detailed Process Map

The detailed Process Map usually maps processes in a sequential manner from start to finish (see Figure 5).

**Figure 5**  | Example of a Detailed Process Map

---

**Quality Improvement Guide**
When you display a Process Map, remember to include a Process Map Key (see Figure 6).

### PROCESS MAPPING STYLES FOR DISPLAY

<table>
<thead>
<tr>
<th>PROCESS:</th>
<th>Rectangle</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECISION POINT:</td>
<td>Diamond</td>
</tr>
<tr>
<td>START OR STOP POINT:</td>
<td>Oval</td>
</tr>
<tr>
<td>INPUT OR OUTPUT DATA:</td>
<td>Parallelogram</td>
</tr>
<tr>
<td>DOCUMENTATION:</td>
<td>Document</td>
</tr>
<tr>
<td>DELAY:</td>
<td>Bullet</td>
</tr>
<tr>
<td>DATABASE:</td>
<td>Cylinder</td>
</tr>
<tr>
<td>UNCLEAR STEP:</td>
<td>Cloud</td>
</tr>
<tr>
<td>CONNECTOR:</td>
<td>Circle</td>
</tr>
</tbody>
</table>

**FIGURE 6** | Example of a Process Map Key

2. **High-level Process Map**

A high-level Process Map is the most basic of all (see Figure 7). It lists the main steps in a process — usually five to twelve of them. It is a great start, and it is often followed by a top-down Process Map.

**FIGURE 7** | Example of a High-level Process Map for Emergency Department visit
3. High-low Process Map

To create a High-low Process Map (see Figure 8), place the steps of the process in the top row. Under each high-level process step, list the detailed steps that must take place in order for it to happen. This style of Process Map reveals the amount of work that is required at each step of the process.

<table>
<thead>
<tr>
<th>ED Registration</th>
<th>See Triage Nurse</th>
<th>See ED Nurse</th>
<th>See Physician</th>
<th>Get Diagnostics</th>
<th>See Physician Again</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enter personal information</td>
<td>• Brief history</td>
<td>• History</td>
<td>• History or Physical exam</td>
<td>• Get lab or X-ray</td>
<td>• Final Diagnosis</td>
</tr>
<tr>
<td>• Verify OHIP Status</td>
<td>• Check vitals</td>
<td>• Send for lab or X-ray if obvious</td>
<td>• Order tests</td>
<td>• Prescribe treatment</td>
<td></td>
</tr>
<tr>
<td>• Send to triage</td>
<td>• Send patient to waiting room</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 8**  | Example of a High-low Process Map

**TIP!** The High-low Process Map can be useful if the team is struggling with the appropriate level of detail. If your team has a lot of detail-oriented people on it, you can park these details, while still maintaining a view of the big picture.

4. Swim lane Process Map

In a Swim lane Process Map, each “lane” is labeled with a care team member or location that is critical for the process to succeed. Do not forget to include the patient/client. Each step of the process is placed in the appropriate swim lane according to who is handling it. A Swim lane Process Map allows the QI team to see how many hand-offs occur during the process from start to finish. Unnecessary hand-offs signal inefficiencies and an increased opportunity for mistakes to occur.

Figure 9 shows the process of a patient going for a scheduled primary care visit. Five hand-offs occur during the process: the patient sees the receptionist, then the nurse to check blood pressure and weight, then the doctor for the examination, then the lab for a test, and finally the receptionist again to book a follow-up appointment.

**TIP!** The Swim lane Process Map is useful for identifying hand-offs where a problem might occur, and for keeping track of who is responsible for which process.
**PRIMARY CARE VISIT**

<table>
<thead>
<tr>
<th>Patient</th>
<th>Transportation to Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor</td>
<td>See Patient/Client</td>
</tr>
<tr>
<td>Nurse</td>
<td>Check BP, weight; do health promotion screen</td>
</tr>
<tr>
<td>Receptionist</td>
<td>Registration</td>
</tr>
<tr>
<td>Lab</td>
<td>Go for Lab Test</td>
</tr>
<tr>
<td></td>
<td>Book Follow-up</td>
</tr>
</tbody>
</table>

**FIGURE 9 | Example of a Swim Lane Process Map**

**Analyzing your Process Map**

Once you have completed your Process Map, ask the following questions:

- Where are the bottlenecks? How could we address these?
- Are there inconsistencies in how things are done? What can be standardized?
- Can things be done:  
  — In a different order?  
  — In parallel?  
  — By a different person with better or same quality, at lower or same cost?
- Can steps be located closer to each other to reduce travel?
- Does each step add value? If not, can it be eliminated?

Process Mapping is fundamental to improving quality, because it allows the team to clearly discuss and understand each step in the process.
4.1.4 Check Sheets

A Check Sheet is a simple data collection tool that can help a QI team identify the most important cause of a quality problem. It can also be used to gather information on the problem or different aspects of the problem. This tool is useful when the team has identified a number of causes or a number of problems or defects, and wants to know which one is the most important.

**TOOLS**

You can find a full-sized copy of the Check Sheet template, pictured here, in the sample tools section of this guide. You can also download this template from [www.ohqc.ca](http://www.ohqc.ca).

**Step-by-step instructions**

1. Generate a list of the most common defects or causes. List as many as you wish — a typical list comprises six to 10 defects or causes. Include an “other” category.
2. Create a Check Sheet (see the template in the sample tools section of the guide).
3. Decide how to collect the data — i.e., going forward in time or back in time, using chart audits or other documentation.
4. Pick a timeframe for collecting data. Ideally, the timeframe should be long enough to observe at least 50 defects or causes. If you are collecting data going forward, try to keep the data collection timeframe short (e.g., one to two weeks).
5. Identify who will collect the data (e.g., the chart reviewer or service provider). Have them mark the appropriate place on the Check Sheet (see Figure 10) each time a defect or cause occurs. Provide specific instructions on how defects or causes are to be defined.
6. Plot the data on a Pareto Chart.
TITLE OF PROJECT: IMPROVED DIABETES SURVEILLANCE

Defects of Interest: Why was blood work not completed?

<table>
<thead>
<tr>
<th>DEFECT</th>
<th>COUNTS</th>
<th>TOTAL COUNTS</th>
<th>FREQUENCY (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Requisition not given at last visit — doctor forgot to order</td>
<td>I I I I I I I I I I</td>
<td>45</td>
<td>48%</td>
</tr>
<tr>
<td>B. Requisition given but patient forgot to get it done</td>
<td>I I I I I I I I I I</td>
<td>31</td>
<td>33%</td>
</tr>
<tr>
<td>C. Requisition given and patient remembered but thinks it is not important</td>
<td>I I I I I</td>
<td>8</td>
<td>9%</td>
</tr>
<tr>
<td>D. Requisition given and patient remembered but lab hours inconvenient</td>
<td>III</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>E. Requisition given and patient remembered but too depressed</td>
<td>III</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>F. Requisition given and patient remembered but chooses not to have it done for other reasons</td>
<td>II</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>G. Other: Patient tested but specimen spoiled and test not repeated</td>
<td>I</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>H. Other: Patient refuses all blood work, so requisition not even given</td>
<td>I</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>

**FIGURE 10 | Example of a Check Sheet**

### 4.1.5 Pareto Charts

The Pareto Chart (see Figure 11) is a tool that helps teams see which causes or problems occur most frequently. The chart plots out the activities or areas that contribute most to poor quality. The Pareto Chart is based on the theory that a small number of causes will have the largest contribution to poor quality. When a few activities contribute to most of the problem, it is called the Pareto Effect. A classic Pareto Effect is observed when 20% of causes contribute to 80% of overall problems.

**Step-by-step instructions**

1. Place the data captured in the Check Sheet into a table, in descending order. From this table, calculate the percentage frequency and cumulative frequency.
2. Plot this information as a bar chart, where each vertical bar represents a different cause or problem and the left vertical axis represents the number of causes and problems/defects.
3. Identify the bar where the cumulative frequency is high relative to the number of categories.
4. Look for a Pareto Effect, where the first few categories account for most of the problems.
PARETO CHART: REASONS WHY BLOOD WORK WAS NOT COMPLETED

![Pareto Chart Diagram](image)

**FIGURE 11** | Example of a Pareto Chart

**TOOLS**

An Excel Pareto Chart template (shown in Figure 11) is available at [www.ohqc.ca](http://www.ohqc.ca). Click on “Tools for QI Teams,” then “Analysing Your System,” then “Pareto Charts.”
### DIABETES PATIENT CARE FLOW SHEET

**Patient name:**

**Date of Birth:**

**Diabetes Diagnosis:**

<table>
<thead>
<tr>
<th>Type 1</th>
<th>Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Professional Risk:**

- High Risk
- Moderate Risk
- Low Risk

**Reason for Hospitalization:**

**Date of Diagnosis:**

**Reason for Readmission:**

**HbA1c targets:**

- Type 1: <7%
- Type 2: <7%

**Lipid profile:**

- Total Cholesterol
- HDL Cholesterol
- LDL Cholesterol
- Triglycerides

**Blood pressure:**

**Weight:**

**Height:**

**Family History:**

- Type 1 Diabetes
- Type 2 Diabetes

**Complications:**

- Nephropathy
- Retinopathy
- Neuropathy

**Pharmacological Management:**

- Type 1: Insulin
- Type 2: Oral Antidiabetic Agents

**Diabetes Management Guidelines:**

- American Diabetes Association
- American College of Physicians

**Laboratory Results:**

- Hemoglobin A1c
- Lipid profile
- Blood glucose

**Other:**

- Other pertinent data

**Nutritional Management:**

- Dietary counseling
- Meal planning

**Physical Activity:**

- Exercise program
- Physical therapy

**Social Support:**

- Support groups
- Community resources

**Education:**

- Self-management skills
- Disease management

**Additional Notes:**

- Medication changes
- Laboratory results

---

**TIP!**

Patient flow sheets are an important tool for collecting data on quality and supporting QI. In general, different conditions have their own flow sheets, which set out the tests, visits and processes that should occur periodically for patients with that condition.

Patient flow sheets can support QI by reminding both the patient and the care provider of what needs to be done at each visit. They are most useful when the information on the flow sheet is routinely entered into an electronic patient registry. QI teams can generate charts based on the data in the registry to show improvements in quality over time or compare quality among different sites or patient sub-groups. If some steps are not being carried out as appropriate, a Check Sheet can be used to measure the frequency of causes. QI teams can analyze this information, which can help them plan appropriate changes to their processes.

---

Quality Improvement Guide  29
4.2 MEASUREMENT

4.2.1 Creating a Measurement Plan

Identify how frequently you want to collect and show data (e.g., daily, weekly or monthly). It must be frequently enough that your QI team will be able to assess the impact of changes as they are testing them. Collect information related to each of your project’s outcome, process and balancing measures using a Measurement Plan template to assist you. The template will help you clarify how you will collect data, and how often. It will also prompt you to outline particular sampling strategies or system analysis strategies you may decide to use.

Wherever possible, collect data that gives you a detailed picture of each individual’s experience. For example, measure how many hours it took per patient to get an incontinence assessment, rather than whether it took more than 24 hours after admission. Do this even if your analysis might eventually be about a percentage of patients meeting a target value (e.g., 24 hours).

**TOOLS**

A Measurement Plan template is available at [www.ohqc.ca](http://www.ohqc.ca).

**Key measurement guidelines**

- Choose measures that support the team’s aim statement
- Use existing data collection systems, whenever possible
- Integrate measurement into the daily routine
- Plot measures each month
- Use a set of five to seven measures to track progress throughout your QI project

Sometimes, QI teams need simple ways to collect data in order to be able to collect it frequently enough to assess the impact of changes. Two simple ways to collect data are mini-surveys and sampling.

**TIP!**

When creating a Measurement Plan:
- Seek usefulness, not perfection
- Use sampling
- Do not wait for information systems
- Report percentages and rates as appropriate
- Try to use patient-level values whenever possible
- Use actual numbers whenever possible
4.2.2 Mini-surveys

Mini-surveys can help a QI team determine a baseline for quality, analyze the possible causes of poor quality and identify potential solutions before starting the QI initiative. Mini-surveys are a particularly good way to test change ideas before implementing them. They can also be used during a QI initiative to monitor progress.

**TIP!** Mini-surveys can show whether a particular small test of change is resulting in improvement, and provide data for the “Study” part of Plan-Do-Study-Act cycles.

**Step-by-step instructions**

1. Design your survey. Select one to five questions and keep them simple.
2. Pre-test the survey questions on five to 10 people.
3. Create a sampling plan. How many people will you survey? Whom will you survey? When?
4. Identify a method to distribute the surveys and collect the results. If you are surveying patients about a service they receive, collect the data immediately after the service is provided, if possible. A simple one-page or half-page paper survey works well. Avoid mail or phone surveys weeks after the fact.
5. Provide an anonymous method for people to submit completed surveys (e.g., a shoebox with a slot) to protect patient/client confidentiality.

**TIP!** Count how many surveys were put out and how many remain at the end of the day. This allows you to calculate an overall response rate.

4.2.3 Sampling

Block sampling and systematic sampling are the two main methods of QI sampling.

<table>
<thead>
<tr>
<th>METHOD</th>
<th>DESCRIPTION</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block Sampling</td>
<td>Make x observations consecutively. Do this at regular intervals.</td>
<td>Every Monday morning, give a mini-survey to the first 15 patients/clients who arrive.</td>
</tr>
<tr>
<td>Systematic Sampling</td>
<td>Make observations on every n&lt;sup&gt;th&lt;/sup&gt; patient.</td>
<td>I want 10 observations per week. I see 100 patients/clients per week. So, I’ll give every 10&lt;sup&gt;th&lt;/sup&gt; patient/clients a mini-survey.</td>
</tr>
</tbody>
</table>
To track your measures effectively, it’s important to develop a data collection plan. This will involve discussing where and how to obtain the data required for your measures, identifying data sources and deciding on a sampling plan.

**DATA SOURCES:** In an ideal situation, the QI team will be able to use existing automated data sources — such as a hospital’s information technology (IT) system or a primary care practice’s electronic medical records — to obtain the data they need for their measures. If these data sources are not available, the team may consider adapting the IT system to collect the new data, creating a new automated system or collecting data manually. If you are collecting data manually, keep the information required brief and focused.

**SAMPLING PLAN:** As part of the data collection plan, the team decides how often it will collect data — for example, daily, weekly, bi-weekly or monthly. Measures should be collected frequently enough to guide the project. For QI initiatives, smaller and more frequent data collection or sampling is helpful. The team will also decide on the timeframe for reporting results from the data collection.

When working towards improvement, analyze your data using techniques that display the variation in the process. To do this, employ one of the charts outlined in the next section.

### 4.3 DEMONSTRATING YOUR IMPACT

Analyzing data over a period of time makes it easier to assess the impact of QI changes. A graphical display of results is very useful to show changes in measures across the life cycle of a project. Both run charts and control charts can achieve this.

Run charts are useful regardless of how much data you have collected. They are simple to produce and interpret, and they are guided by simple rules. Control charts provide a more powerful way of analyzing your results, though they require more data for input and more sophistication to produce and interpret.

**TIP!**

- To facilitate analysis:
  - Plot data over time
  - Track a few key measures over time — this is the single most powerful strategy a team can use
  - Try not to aggregate data (e.g., show consecutive individual patients’ times, rather than the percentage of patients reaching a target over a one-month period)
  - Display the data as soon as possible after the event
4.3.1 Run charts

Run charts should be set up at the start of a QI project and updated with new data as the project unfolds. A run chart is a graph that illustrates changes in quality over time. Measurements are taken at frequent points in time and connected with a line. This provides a graphical display of variation across time, and can help a team see if their changes have led to improvement.

An annotated run chart (see Figure 12) has comments with arrows pointing to times when different ideas for improvement were tested. This helps explain any sudden changes in quality that may have occurred.

![Figure 12 | Example of an Annotated Run Chart](image)

**Step-by-step instructions**

1. As you gather your data, create a graph where the measure of quality is on the vertical axis and time is on the horizontal axis. Connect each data point with a line.
2. Show your target for improvement by drawing a horizontal line across the graph, labeled “target.”
3. Show the median point of your data by drawing a horizontal line across the graph at the level where half the data points are above, and half are below that line.
4. Annotate the run chart with comments to tell the story of the different improvements the team has tried.
<table>
<thead>
<tr>
<th>MONTH</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Diabetes Patients in Dr. Jones’ Family Practice with Good Blood Sugar Control (HbA1c &lt; 0.07)</td>
<td>49%</td>
<td>48%</td>
<td>50%</td>
<td>50%</td>
<td>49%</td>
<td>53%</td>
<td>55%</td>
<td>55%</td>
<td>56%</td>
<td>59%</td>
<td>62%</td>
<td>63%</td>
</tr>
</tbody>
</table>

**FIGURE 13 | An Annotated Run Chart at Work**

QI teams can recognize significant changes — hopefully, improvements — by carrying out two simple tests on a run chart (see Figure 13):

1. Are there six or more consecutive points above the median?
2. Are there six consecutive points moving upward or downward?
If we see evidence of either of these rules in our chart, it indicates that a significant change has occurred within the process. Now, the QI team’s task is to maintain progress and continue to improve.

Once a run chart has more than 11 points, consider turning it into a control chart.

### 4.3.2 Control charts

Control charts are like run charts, but they have much more statistical power to detect changes and improvements. This section of the guide provides an introductory look at control charts, including their construction and interpretation.

**When to use control charts, and with what data**

Control charts are used for QI, and also for performance monitoring (e.g., dashboards or scorecards). Data may be presented in various forms:

- Percentages
- Rates
- Counts
- Individual values
Many kinds of control charts are needed to work with different types of data — but all control charts look similar and are interpreted in much the same way.  

**Understanding variation: common and special cause**

Control charts help QI teams understand the nature of the variation of their processes. They may answer questions such as:

- Do we have a stable or in-control process with common cause variation?
- Do we have an out-of-control process with special cause variation?
- What does the variation tell us about the level and range of performance of the process?

Variation is to be expected. Processes rarely produce the same measurements every time. It takes different times to get to work; golf scores vary; blood pressures fluctuate; patient volumes in emergency departments are never identical; and waiting times vary from one patient to the next.

The combination of small variations of a process adds up to common cause variation. Control charts can demonstrate whether a process is in statistical control (showing only common cause variation) or showing special cause variation. In QI projects, we test and implement changes to try to influence the process to show improvements, and this would be “special cause.”

Common cause variation means that no one thing in particular is causing the result. When we travel to work, for example, all sorts of things contribute to how long it takes: traffic volumes may vary; the number of red lights may vary; and the number of people making left-hand turns may vary. Sometimes, however, variation in a process is due to a special cause. For example, we are driving to work and have to take a long detour because of a water main break. Special cause variation can often be attributed to something unusual, rare or difficult to identify. If it isn’t unusual or rare, it is probably common!

---

**EXAMPLE, PART 1**

Imagine a QI team working on improving access to primary care appointments in a small practice. The office manager suggests looking at previous patient wait times to see how bad things really are. The clinic assistant pulls five patient charts for each day in the last month and records the time spent between a patient’s scheduled appointment time and the time the patient was taken to an examination room. The assistant puts the data into a spreadsheet and discovers that the average wait time was 36 minutes. Several patients were seen without any wait at all, but there were many times when patients waited over an hour for their scheduled appointment. The QI team works for several months to improve scheduling, efficiency and chart retrieval. They monitor wait times to see if they are getting better. Realizing they need a better tool for analyzing their data, they arrange to have someone input their data into a control chart. We will return to this team’s story after providing some control chart background and interpretation guidance.

---

3 It is beyond the scope of this guide to describe all the possible types of data and related control charts. You’ll find references to useful discussions of control charts at the end of the section. Software is available that makes charting relatively easy.
Control chart fundamentals

A control chart is a run chart with a line drawn at the average (or mean), and pairs of control limits. The control limits are calculated to show one, two, and three standard deviation (SD) lines for the plotted data. Most if not all control charts show three SD limits, commonly called the upper control limit (UCL) and lower control limit (LCL). A point beyond one of the three SD limits is evidence that a special cause probably occurred. The QI team’s job is to figure out what this might be. Sometimes, as the example of a long detour on the way to work showed, the reason is very obvious. But often it is not.

What about the one and two SD limits? Statisticians have determined that there are other ways data can show special cause — cases when different patterns of measurements involve the other limits. There are many rules, some very similar to rules used to interpret run charts. For example, if we were to see two out of three consecutive measurements beyond a two SD line, this would be statistically unusual and is evidence that a special cause may have occurred. If we see eight points in a row above or below the average, that again indicates a special cause.

EXAMPLE, PART 2

The person helping the QI team build a control chart decided it would be best to look at the average of patient wait times per day. The team’s expectation was that daily wait times should have been reduced after all the improvements they had made. The analyst constructed a chart to look at the average daily wait time — a control chart called an XbarR chart. She constructed the chart using the original month’s data and used those limits to test for a special cause in the following weeks (see Figure 16).

Despite considerable variation by day, and a relatively poor overall average, the data for the original month did not show any special cause. This data was in statistical control despite week 15 with a low average wait time, and week 8 with a very high average wait time.

Although it took a few weeks to show it, the process improved and several instances of special cause were observed. Although no daily average ever exceeded a three SD control limit, starting in week 7 (the third week after starting to make changes), eight consecutive daily averages were below the original average. This suggested that the changes were starting to make noticeable improvements.

The team continued to work on improving the various processes in their practice, and realized they needed to draw a new control chart because their new process was consistently better than their old one.
Control chart interpretation

We look at control charts to see if there is any evidence of special cause in the charted data. Special cause can be observed in several ways, using a number of rules.

If we do not see evidence of special cause, it means our process is in statistical control. We then want to look at the average value and where the limits are. Looking at the average tells us whether the process is good or not on average. A process could be in control, and still be a poor process — “patients always wait a long time at this clinic!” It could also be that there are very wide limits around the average. Imagine that patients typically wait an average of 15 minutes at your clinic, but on some days the average wait time is 20, 30 or even 40 minutes. The overall average may be acceptable, but the variation around it may be unacceptable.
When you have special cause variation, you want to understand why (see Figure 17). In the case of a QI project, the “why” may be because you introduced a change and wanted to see a special cause signal that indicates you’ve made an improvement. In other situations, when you are monitoring a process, special cause may indicate something that you do not want to happen. For example, triage times might have become too long, readmission rates too high or patient satisfaction too low. In these instances, you want to investigate and find out what happened.

**FIGURE 17** | Appropriate Action on Variation

If you are trying to improve your processes, but are not seeing a special cause signal, revisit your tests of change using PDSA and use tools that help you analyze your system.

Control charts are ideally suited to monitoring improvement project outcomes and process measures and helping to determine whether a change is actually an improvement. Easy-to-use software is available.
**RULE 1**
Any point above the UCL or below the LCL

**RULE 2**
Any two out of three consecutive points fall beyond two standard deviations above or below the mean

**RULE 3**
Any four out of five consecutive points fall beyond one standard deviation above or below the mean

**RULE 4**
Eight consecutive points fall on one side of the mean
4.4 CONCLUSION

Public reporting on quality in Ontario shows that Ontario has some leading practices and programs, but with ample room for improvement. Organizations are increasingly interested in leveraging their success to strengthen existing QI activities and develop new QI projects. This guide is meant to serve as a resource for QI practitioners and teams to allow them to continue to develop QI skills sets and expand their QI toolkit.

The guide provided case studies to illustrate the progression of QI projects and the many resources available to QI teams. It covered the fundamentals of the Model for Improvement and rapid cycle improvements, which often help drive the new culture of Continuous QI. It also shared methods and practical tips to help teams more readily analyze their current processes and identify opportunities for improvement.

It is hoped that this guide provided both guidance and practical tools to help QI practitioners succeed in their aims.

Readers can find updated versions of the guide and all of OHQC’s QI tools, templates and recommended resources at www.ohqc.ca.
Appendix A  EXAMPLES OF CHANGE CONCEPTS

Many popular change concept groupings, including the three described here, share common themes. These examples are a small sample of the many change concepts available to QI teams.

<table>
<thead>
<tr>
<th>EFFICIENCY CHANGE CONCEPT</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eliminate Waste</td>
<td>Focus on eliminating waste, particularly by reducing steps or resources that do not add value to the patient/client.</td>
</tr>
<tr>
<td>Improve Workflow</td>
<td>Improving the flow of work in processes is an important way to improve the quality of the services provided through those processes.</td>
</tr>
<tr>
<td>Optimize Inventory</td>
<td>Reduce and control inventory at all levels of the organization.</td>
</tr>
<tr>
<td>Change the Work Environment</td>
<td>The work environment itself offers a great opportunity to seek efficiencies — for example, by moving related steps closer together.</td>
</tr>
<tr>
<td>Evaluate the Producer/Customer Interface</td>
<td>Focus on the connections between patients/clients and providers, and the elements that are important to the patient/client in that interface.</td>
</tr>
<tr>
<td>Manage Time</td>
<td>Reduce delays, wait times and cycle times for all services.</td>
</tr>
<tr>
<td>Focus on Variation</td>
<td>Reduce variation to improve quality processes and outcomes.</td>
</tr>
<tr>
<td>Conduct Error Proofing</td>
<td>Redesign the system to make it less likely for people in the system to make errors.</td>
</tr>
<tr>
<td>Focus on the Product or Service</td>
<td>Focus on the quality of the actual service (and product), as well as on the process improvement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MISTAKE PROOFING CHANGE CONCEPT</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forcing Function</td>
<td>Design the system so that it is impossible to make an error.</td>
</tr>
<tr>
<td>Constraining Function</td>
<td>Design the system so that it constrains some component from being able to lead to an error.</td>
</tr>
<tr>
<td>Reminders and Alerts</td>
<td>Generate a reminder when a particular step needs to be done.</td>
</tr>
<tr>
<td>Avoiding Look-alikes</td>
<td>Avoid instances where two items, names, processes or patients look the same. Rename or recode one or more items.</td>
</tr>
<tr>
<td>Visual cues</td>
<td>Label or visually code items so that it is easy to spot when they are in the wrong place.</td>
</tr>
</tbody>
</table>
## ADVANCED ACCESS REDUCES DELAYS AND IMPROVES CONTINUITY OF CARE.

<table>
<thead>
<tr>
<th>ADVANCED ACCESS CHANGE CONCEPT</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure and Understand Supply and Demand</td>
<td>Understanding the patterns of both demand and supply on a weekly, monthly or seasonal basis allows for focused efforts to shape demand to match supply, and/or increase (or decrease) supply during periods of high (or low) demand.</td>
</tr>
<tr>
<td>Balance Supply and Demand on a Daily, Weekly and Long-term Basis</td>
<td>Optimize flow by matching supply and demand on a daily, weekly and long-term basis.</td>
</tr>
<tr>
<td>Optimize the Care Team</td>
<td>Optimizing the care team service delivery model is critical to maximizing the supply and improving the daily flow of the work. Increase supply by increasing efficiency.</td>
</tr>
<tr>
<td>Decrease Demand for Appointments</td>
<td>Reducing demand makes it easier for the system to absorb current or future levels of demand.</td>
</tr>
<tr>
<td>Manage Panel Size and Scope of Practice</td>
<td>Managing panel/roster size and the scope of the practice allows a team to balance supply and demand and ensures that they can do today's work today.</td>
</tr>
<tr>
<td>Increase Continuity</td>
<td>Increasing continuity reduces the need for repeat visits and allows time for patients who need specialized care.</td>
</tr>
<tr>
<td>Reduce Appointment Types</td>
<td>Complex schedules, with many appointment types, times and restrictions, can actually increase total delay in the system because of differential delays and queues. Reducing the complexity ultimately decreases system delays.</td>
</tr>
<tr>
<td>Recalibrate the System by Working Down the Backlog</td>
<td>Backlog consists of appointments on the future schedule put off due to lack of space on the schedule to do this work earlier; working down the backlog recalibrates the system to improve access.</td>
</tr>
<tr>
<td>Create Contingency Plans</td>
<td>The natural variation in supply and demand that occurs as part of the everyday functioning of a practice often creates problems that contingency plans can address.</td>
</tr>
</tbody>
</table>
Appendix B: RESOURCES


## Appendix C_ REFERENCES

### ORGANIZATIONS

<table>
<thead>
<tr>
<th>Organization</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Patient Safety Institute</td>
<td><a href="http://www.patientsafetyinstitute.ca">www.patientsafetyinstitute.ca</a></td>
</tr>
<tr>
<td>Guidelines Advisory Committee</td>
<td><a href="http://www.gacguidelines.ca">www.gacguidelines.ca</a></td>
</tr>
<tr>
<td>Improvement Foundation, UK</td>
<td><a href="http://www.improvementfoundation.org">www.improvementfoundation.org</a></td>
</tr>
<tr>
<td>Institute for Healthcare Improvement</td>
<td><a href="http://www.ihi.org">www.ihi.org</a></td>
</tr>
<tr>
<td>Institute for Safe Medication Practices Canada</td>
<td><a href="http://www.ismp-canada.org">www.ismp-canada.org</a></td>
</tr>
<tr>
<td>The Centre for Healthcare Quality Improvement</td>
<td><a href="http://www.chqi.ca">www.chqi.ca</a></td>
</tr>
<tr>
<td>Ministry of Health and Long-Term Care, Health Care Improvement Practices Registry</td>
<td><a href="http://www.improvementpractices.on.ca">www.improvementpractices.on.ca</a></td>
</tr>
<tr>
<td>National Guideline Clearinghouse (NGC)</td>
<td><a href="http://www.guideline.gov">www.guideline.gov</a></td>
</tr>
<tr>
<td>Ontario Hospital Association</td>
<td><a href="http://www.oha.com">www.oha.com</a></td>
</tr>
<tr>
<td>Ontario Wait Times</td>
<td><a href="http://www.health.gov.on.ca/transformation/wait_times/">www.health.gov.on.ca/transformation/wait_times/</a></td>
</tr>
<tr>
<td>Quality Healthcare Network</td>
<td><a href="http://www.qualityhealthcarenetwork.ca">www.qualityhealthcarenetwork.ca</a></td>
</tr>
<tr>
<td>Quality Improvement and Innovation Partnership</td>
<td><a href="http://www.qiip.ca">www.qiip.ca</a></td>
</tr>
<tr>
<td>Registered Nurses Association of Ontario</td>
<td><a href="http://www.rnao.org">www.rnao.org</a></td>
</tr>
<tr>
<td>Safer Healthcare Now!</td>
<td><a href="http://www.saferhealthcarenow.ca">www.saferhealthcarenow.ca</a></td>
</tr>
</tbody>
</table>
Appendix D  SAMPLE WORKSHEETS

Use the tools on the following pages as templates, customizing them to work more effectively with your team and organization.

INVENTORY OF QI WORKSHEETS

Model for Improvement Worksheet
Quality Improvement Project Charter Worksheet
Plan-Do-Study-Act Form
Process Map Form
Fishbone Diagram
Measurement Plan Template
Check Sheet Worksheet
TEAM SHOULD PLAN THREE ELEMENTS

1. **Aim** — clear, time-specific, stretch and valuable to patient

2. **Measures**
   - Outcome Measures
   - Process Measures
   - Balancing Measures

3. **Change Concepts** (list ideas, things others have tried, hunches and evidence)
### QUALITY IMPROVEMENT PROJECT CHARTER WORKSHEET

<table>
<thead>
<tr>
<th>Project Title:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Leader:</td>
<td>Executive Sponsor:</td>
</tr>
<tr>
<td>Team Members:</td>
<td></td>
</tr>
<tr>
<td>Name:</td>
<td>Position and Organization or Department</td>
</tr>
<tr>
<td>Patients/Clients/Family Who Will Benefit:</td>
<td>Types of Clinical and Administrative Staff, Suppliers, etc. Involved:</td>
</tr>
<tr>
<td><strong>Problem/Opportunity Statement</strong> (What’s wrong with quality?)</td>
<td></td>
</tr>
<tr>
<td><strong>Aim Statement</strong> (What are we trying to accomplish? Numerical target for improvement, over what time?)</td>
<td></td>
</tr>
<tr>
<td><strong>Measures</strong> (How will we know if we are improving?)</td>
<td></td>
</tr>
<tr>
<td>Outcome Measures</td>
<td></td>
</tr>
<tr>
<td>Process Measures</td>
<td></td>
</tr>
<tr>
<td>Balancing Measures</td>
<td></td>
</tr>
</tbody>
</table>
### Change Ideas (What can we try that will result in an improvement?)

<table>
<thead>
<tr>
<th>Business Case (Are health system costs reduced by addressing the problem?)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Link to Organizational Strategy</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Term of Project (Start and Stop Dates):</th>
<th>Project Budget:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Anticipated Milestones:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Estimated Time Required for Staff Participation:</th>
</tr>
</thead>
</table>
Objective for this PDSA Cycle

Is this cycle used to:

☐ develop or  ☐ test or  ☐ implement a change?

What question(s) do we want to answer on this PDSA cycle?

---

**PLAN:**

*Plan to answer questions: Who, What, When, Where?*

*Plan for collection of data: Who, What, When, Where?*

*Predictions (for questions above based on plan):*

---

**DO:**

*Carry out the change or test, collect data and begin analysis.*

---

**STUDY:**

*Complete analysis of data.*

*Compare data to predictions and summarize what was learned.*

---

**ACT:**

*Are we ready to make a change? Plan for the next cycle.*
“If you can’t draw a picture of your process, you can’t improve anything.”

Dr. W. Edwards Deming
# Measurement Plan Template

## QI Project:

### Timeframe for Project:

<table>
<thead>
<tr>
<th>WHAT ARE YOUR MEASURES?</th>
<th>DATA SOURCE</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balancing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**How do your outcome and process measures link to your organization’s corporate dashboard?**

**Will you measure causes of poor quality?** □ Yes □ No  
If so, for which measures of quality?

**Will you collect baseline data?** □ Yes □ No  
If yes, what is the timeframe for the baseline?

**Will you use sampling for any manual data collection methods?** □ Yes □ No  
If yes, for each data collection method, indicate sampling method (block or systematic) and protocol.
Use this data to produce Pareto Charts to assess common reasons for problems and focus on improvement opportunities.

Organization/Unit Name: 

Topic Question: 

Examples of topic questions:
- Why aren’t patients being turned as per care plan?
- Why aren’t clients receiving diagnostic screenings as per protocol?

Location Specifics: __________________________ Data Recorders: __________________________

Start Date: __________________________ End Date: __________________________

<table>
<thead>
<tr>
<th>Defect or Defect Cause</th>
<th>Count (Use Checkmarks)</th>
<th>Total Checkmarks</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
May 30th, 2013

To: All Orthopaedic staff and residents

From: Michelle Ghert, Associate Program Director

Re: Orthopaedic Training Program Research Program

Dear faculty and residents,

As a training program, we are mandated by the Royal College of Physicians and Surgeons of Canada to ensure that residents ‘are able to conduct a scholarly project during their training.’ In order to ensure quality projects and promote the rebranding of our program as ‘evidence-based’ and research focused, the program is restructured as follows:

1. Any resident who wishes to complete a project during a research rotation of up to 6 months may submit a proposal with complete Ethics approval to the Orthopaedic Executive Council. The same items should be submitted if a resident is interested in taking one half day per week (provided team coverage is not affected) to work on a project. The proposals will be reviewed by the Executive Council and residents with projects deemed feasible in the allotted time and to be of high quality will be allowed a designated research rotation or half day.

2. The Surgeon-Scientist Program (SSP) is available for residents who wish to pursue a graduate degree. Residents in the SSP program will not be included in the clinical rotation schedule. Applications are submitted to Dr. Sheila Singh, Director of SSP.

3. The Orthopaedic Divisional Day will take place off-site as a full day program. Presenters will include resident award winners, alumni, a visiting professor, international fellows, faculty and graduate students. In essence, the day will be a showcase of the top research of the Orthopaedic Division.

4. Presentation of a completed research project as a PGY5 at the Resident Research Day will be a requirement for the Executive Council to approve resident entry into the Royal Collage exams. These presentations will take place at the Annual Orthopaedic Residents’ Graduation Academic Day in the spring.
5. Any resident who is interested in presenting a completed research project at the Annual Department of Surgery Resident Research Day should submit an abstract to Dr. Ghert.

6. The Associate Program Director is available for guidance with respect to research interests as soon as the residents begin PYG1. Please arrange a meeting with Dr. Ghert if issues arise or if you are requesting research direction.

We are looking forward to providing outstanding opportunities for resident research and developing MacOrtho as a world-class Orthopaedic research program.

Sincerely,

Michelle Ghert, MD, FRCSC
April 7, 2011

To all Ortho Staff and residents:

RE: Grand Rounds and Senior Sessions 2011-2012

Grand Rounds for the Division of Orthopaedic Surgery will resume on Wednesday September 7th. During the summer, Oncology Rounds will begin at 7:30 am on Wednesdays and Senior Sessions will be replaced with anatomy review sessions and basic science/biomechanics sessions.

Starting September, Grand Rounds will resume with the addition of a monthly Innovation Series (details to follow at a later date). The senior sessions will be organized into subspecialty blocks with an MCQ exam at the end of each block. For your convenience, we invite staff to present Grand Rounds on the same day they are teaching the senior session.

For Grand Rounds,

1. Staff are encouraged to present topics that are of current interest in each specific subspecialty.
2. Please feel free to assign a resident who is on your rotation or an interested resident to participate in the presentation by either preparing a brief case presentation or a very brief topic review (no more than 2-3 minutes per case or topic review) which will be incorporated into the overall presentation.
3. Please try to incorporate some audience participation. This can be both faculty and residents. Also, feel free to try any new educational techniques or presentation styles you have seen work well in the past. There is nowhere better to try them out than amongst friends and colleagues.
4. Please provide an emphasis on the best available evidence for the topic you are presenting.

We are also encourage staff to invite visiting professors. Please find attached the Grand Rounds and Senior Session Schedule for the 2011-2012 academic year. Please assist by providing the following to Laura Stewart at lastewa@mcmaster.ca as soon as possible (preferably by the end of April):

1. Any dates that you will not be able to present.
2. Two topics that you plan to present for Grand Rounds or visiting professors who you plan to invite and the dates you would like to invite them.
3. In order for CME credit please remember to send your learning objectives in CanMeds format.

Morbidity and Mortality Rounds will be held once per quarter and will be closed sessions. Subspecialty groups will be assigned to each quarter and the staff within that subspecialty can choose a presenter amongst themselves.

MacOrtho is looking forward to a year of outstanding academic stimulation for both Orthopaedic staff and residents.

Sincerely,

Mohit Bhandari       Brad Petrisor       Michelle Ghert
Academic Divisional Heart  Program Director  Associate Program Directors
<table>
<thead>
<tr>
<th>Date</th>
<th>Room Booking</th>
<th>Speaker</th>
<th>Grand Rounds Bookings</th>
</tr>
</thead>
<tbody>
<tr>
<td>0700-0730</td>
<td>3020</td>
<td>Welcome to 2012 (Petrisor) - 0800-0830</td>
<td></td>
</tr>
<tr>
<td>0730-0830</td>
<td>3020</td>
<td>Fel lls to discuss surgical approach &amp; anatomy (B. Petrisor)</td>
<td></td>
</tr>
<tr>
<td>0900-1200</td>
<td>Anatomy Lab</td>
<td>Foot &amp; Ankle - Brad Petrisor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anatomy Lab</td>
<td>Knee - D. Williams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anatomy Lab</td>
<td>Frank Smith - knee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anatomy Lab</td>
<td>Spine - Des Kwok</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Review of JR OSCE</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>0730 Start</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>0730 Start</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>0730 Start</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>0730 Start</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>0730 Start</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>0730 Start</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Communication -- PGY1 running</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>INORMUS - Mexican Speaker - Dr. de la Huerta copy. Pauul MacKay on email</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma Fellow &amp; Foot &amp; Ankle - J. AlAsiri</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma - Pelvis &amp; Acetabulum D. Williams</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma Infections, non unions &amp; complex fracture - B. Ristevski</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma Fello w &amp; Foot &amp; Ankle - J. AlAsiri</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma - Pelvis &amp; Acetabulum D. Williams</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma Infections, non unions &amp; complex fracture - B. Ristevski</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma Fello w &amp; Foot &amp; Ankle - J. AlAsiri</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma - Pelvis &amp; Acetabulum D. Williams</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma Infections, non unions &amp; complex fracture - B. Ristevski</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma Fello w &amp; Foot &amp; Ankle - J. AlAsiri</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma - Pelvis &amp; Acetabulum D. Williams</td>
<td></td>
</tr>
<tr>
<td>0730</td>
<td>MDCL 3020</td>
<td>Trauma Infections, non unions &amp; complex fracture - B. Ristevski</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Event Description</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-----------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>16-Oct</td>
<td>3020</td>
<td><strong>Radiation Safety Committee</strong></td>
<td></td>
</tr>
<tr>
<td>22-Oct</td>
<td>2232</td>
<td><strong>Foot &amp; Ankle - Brad Petrisor</strong></td>
<td></td>
</tr>
<tr>
<td>30-Oct</td>
<td>2232</td>
<td><strong>Senior OSCE (MCQ on F &amp; A and Trauma)</strong></td>
<td></td>
</tr>
<tr>
<td>30-Oct</td>
<td>2232</td>
<td><strong>Radiation Safety Committee</strong></td>
<td></td>
</tr>
<tr>
<td>22-Oct</td>
<td>2232</td>
<td><strong>Foot &amp; Ankle - Ankle, Trauma &amp; Elective B. Petrisor</strong></td>
<td></td>
</tr>
<tr>
<td>6-Nov</td>
<td>2232</td>
<td><strong>Alex Rabinovich</strong></td>
<td></td>
</tr>
<tr>
<td>13-Nov</td>
<td>2232</td>
<td><strong>Treatment Options for OA of the Great Toe - L. Saunders</strong></td>
<td></td>
</tr>
<tr>
<td>20-Nov</td>
<td>3020</td>
<td><strong>M &amp; M/ F &amp; A Trauma</strong></td>
<td></td>
</tr>
<tr>
<td>27-Nov</td>
<td>3020</td>
<td><strong>Arthroplasty</strong></td>
<td></td>
</tr>
<tr>
<td>11-Dec</td>
<td>3020</td>
<td><strong>UE - Hussain Algawahmed</strong></td>
<td></td>
</tr>
<tr>
<td>18-Dec</td>
<td>3020</td>
<td><strong>PGY2 &amp; 3 OSCE (schedule PGY3s first then 2s) - 5s run this</strong></td>
<td></td>
</tr>
<tr>
<td>25-Dec</td>
<td>3020</td>
<td><strong>NO SESSION - HAPPY HOLIDAYS</strong></td>
<td></td>
</tr>
<tr>
<td>1-Jan</td>
<td>3020</td>
<td><strong>NO SESSION - HAPPY HOLIDAYS</strong></td>
<td></td>
</tr>
<tr>
<td>8-Jan</td>
<td>3020</td>
<td><strong>PD meet with Residents</strong></td>
<td></td>
</tr>
<tr>
<td>15-Jan</td>
<td>3020</td>
<td><strong>UE - Dr. K. Rajaratnam</strong></td>
<td></td>
</tr>
<tr>
<td>22-Jan</td>
<td>3020</td>
<td><strong>Review of JR OSCE</strong></td>
<td></td>
</tr>
<tr>
<td>29-Jan</td>
<td>3020</td>
<td><strong>SPEAKER SERIES</strong></td>
<td></td>
</tr>
<tr>
<td>5-Feb</td>
<td>3020</td>
<td><strong>Spine - Dr. B. Drew</strong></td>
<td></td>
</tr>
<tr>
<td>12-Feb</td>
<td>3020</td>
<td><strong>Spine - Dr. Desmond Kwok</strong></td>
<td></td>
</tr>
<tr>
<td>19-Feb</td>
<td>3020</td>
<td><strong>UE -- H. Algawahmed (Fellow)</strong></td>
<td></td>
</tr>
<tr>
<td>26-Feb</td>
<td>3020</td>
<td><strong>Fellows Trauma - J. Choi</strong></td>
<td></td>
</tr>
<tr>
<td>5-Mar</td>
<td>3020</td>
<td><strong>SPEAKER SERIES</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3020</td>
<td><strong>CanMeds Grand Rounds Manager (Fellow)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3020</td>
<td><strong>MCQ Spine &amp; UE</strong></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td>Time</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>12-Mar</td>
<td>PD meet with Residents</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M&amp;M - Spine Team (B. Drew, D. Kwok, B. Dunlop)</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>19-Mar</td>
<td>Peds - Dr. Sarah Burrow</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MCQ Review of UE and Spine - Algawahmed</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>26-Mar</td>
<td>Peds Ortho - Spine Syndromes/Congenital Anomalies D. Peterson</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>2-Apr</td>
<td>PD meet with Residents</td>
<td>2232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peds - Dr. Paul Missuna</td>
<td>2232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peds Ortho - Angular Deformities/ F &amp; A (Dr. Paul Missuna)</td>
<td>2232</td>
<td></td>
</tr>
<tr>
<td>9-Apr</td>
<td>M &amp; M - Peds</td>
<td>2232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peds Ortho - Hip (Dr. D. Peterson)</td>
<td>2232</td>
<td></td>
</tr>
<tr>
<td>16-Apr</td>
<td>Sports - Dr. F Ayeni</td>
<td>3022 - NO VC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sports - Hip &amp; Knee (Dr. F. Ayeni)</td>
<td>3022 - NO VC</td>
<td></td>
</tr>
<tr>
<td>23-Apr</td>
<td>SPORTS FELLOW - H. Alradwan</td>
<td>2232</td>
<td></td>
</tr>
<tr>
<td>30-Apr</td>
<td>Sports Principles (M. Creeh)</td>
<td>2232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CanMeds Grand Rounds (Health Advocate) - &quot;Health Advocacy&quot; - Creech</td>
<td>2232</td>
<td></td>
</tr>
<tr>
<td>7-May</td>
<td>RESIDENT RETREAT</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>14-May</td>
<td>MacHAND</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PGY4 &amp; 5 OSCE - Peds &amp; Sports MCQ</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>21-May</td>
<td>Sports - Dr. M. Denkers</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sports - Shoulder, Elbow</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>28-May</td>
<td>MacSports Labs - HGH &amp; MUMC (Creech &amp; Alradwan)</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>4-Jun</td>
<td>PD meet with Residents</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sports - Dr. R. Ogilvie</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSCE Review PGY5 can do this or Matt</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>11-Jun</td>
<td>SPEAKER SERIES</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>18-Jun</td>
<td>Resident Research Rounds (PGY1 &amp; Others invited)</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CanMeds SS (Manager, Medical Expert)</td>
<td>3020</td>
<td></td>
</tr>
<tr>
<td>25-Jun</td>
<td>Gap Day</td>
<td>2232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not program</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**EVALUATION of Academic Half Day**  
Includes, Grad Rounds, Senior Session  
**ORTHOPAEDIC SURGERY**

* you must provide comments when choosing this rating

<table>
<thead>
<tr>
<th>CanMEDS Roles / Competencies</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be completed by __________</td>
<td></td>
</tr>
<tr>
<td>On this form, you will be evaluating ____________________</td>
<td></td>
</tr>
<tr>
<td>For dates: ______________ to _________________</td>
<td></td>
</tr>
<tr>
<td>Below Average</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>1*</td>
<td>2*</td>
</tr>
</tbody>
</table>

1. Interest for education (preparation, audience engagement, encouraged questions etc.)
2. Enthusiasm for education
3. Content (important clinical issues addressed, where applicable integrated basic science and clinical problems, addressed appropriate societal, and clinical issues)
4. Goals and objectives clearly discussed and met
5. Ability to teach (organization, visual aids, educational techniques)
6. Evidence Based approach (discussion of research evidence and critical appraisal or provided evidence summaries, bottom line and discussed clinical usefulness of evidence)
7. Communication skills (kept audience interest, handled questions well)
8. Where Objectives Provided?
9. If yes, did the teacher adhere to the Objectives?
10. If references were given, They related to the lecture content?
11. The Lecturer outlined relevance to future practice and exams
12. Would you recommend this speaker again?

Met the Following CanMeds Competencies in:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>As Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework</td>
<td></td>
</tr>
<tr>
<td>As Communicators, Orthopedic Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.</td>
<td></td>
</tr>
<tr>
<td>As Collaborators, Orthopedic Surgeons effectively work within a healthcare team to achieve optimal patient care</td>
<td></td>
</tr>
<tr>
<td>As Managers, Orthopedic Surgeons are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.</td>
<td></td>
</tr>
<tr>
<td>As Health Advocates, physicians responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.</td>
<td></td>
</tr>
<tr>
<td>As Scholars, Orthopedic Surgeons demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge</td>
<td></td>
</tr>
<tr>
<td>As Professionals, Orthopedic Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.</td>
<td></td>
</tr>
</tbody>
</table>

**OVERALL COMPETENCE**

| Below Average | Satisfactory | Excellent |
| 1* | 2* | 3 | 4 | 5 | 6 | 7* |

* you must provide comments when choosing this rating
T-Res Abbreviations

Ew - Elbow
Fr - Femur
FA - Foot & Ankle
Fm - Forearm
HW - Hand & Wrist
Hp - Hip
Hs - Humerus
Ke - Knee
Ps - Pelvis
SG - Shoulder Girdle
Se - Spine
Ta - Tibia

Other acronyms/abbreviations:

I&D - Irrigation and Debridement
Bn or BN - Benign
Mn or MN - Malignant
ST - Soft Tissue
Ex/Curr - Excision/Curretage
IP - Intrapanageal
MTP - Metatarsophalangeal
TMT - Tarso-Metatarsal Joints
BK - Below Knee
Cg - Congenital Anomaly
UE - Upper Extremity
LEx or LE - Lower Extremity
B&C - Bone and Cartilage
Met - Metastatic
N - Neurologic
NR - Nerve Root
SC - Spinal Cord
Dis - Disorder
Inj - Injection
T/F - Tibia/Fibula
T/L & SI - Thoracic, Lumbar & SI
R - Radius
U - Ulna
L&M - Ligament & Meniscal

Empty Your Cup

The Japanese master Nan-in gave audience to a professor of philosophy. Serving tea, Nan-in filled his visitor's cup, and kept pouring. The professor watched the overflow until he could restrain himself no longer: "Stop! The cup is over full, no more will go in." Nan-in said: "Like this cup, you are full of your own opinions and speculations. How can I show you Zen unless you first empty your cup."
April 18th, 2012

To the Orthopaedic faculty:

The Residency Program Committee for the Orthopaedic Training Program at McMaster University is proud to announce the new Mentorship Program. The success of this program will lead to a strengthening of the relationship between orthopaedic surgeons and trainees, and aid in conflict resolution, career planning, and lead to an overall positive morale amongst residents and staff. Below are a list of weaknesses identified on other mentorship programs, followed by a detailed list of the strengths and objectives of the MacOrtho Program.

Weaknesses observed in other mentorship programs:

- no leadership
- no administrative support
- not a primary priority of the residency program
- random mentor and mentee pairing
- pairs remain constant for duration of residency
- no flexibility in changing mentors
- no objectives
- no documentation of meetings or progress
- no avenues for mentee support or conflict resolution
- no feedback

Strengths and Objectives of the McMaster Mentorship Program:

1. Leadership role of mentorship program director by Dr. Ben Deheshi, with support from the Residency Program Committee (RPC).

2. Administrative support by Candice Stroud, current Orthopaedic Surgery program coordinator who is familiar with residents and faculty.

3. The mentorship program was implemented by Dr. Brad Petrisor, Program Director, and Dr. Michelle Ghert, Associate Program director and fully supported by the RPC.

4. The mentor and mentee pairing process is based on a survey of individual residents and their subspecialty interests.

5. There will be a junior, senior, and chief mentorship pairing. PGY-1 residents will be assigned a mentor suited to their subspecialty interests at the time. At the beginning of PGY-3 year, they will be assigned a new mentor as their subspecialty interest evolves. The chief residents will have the option to choose their mentors based on their fellowship plans and subspecialty interest.
6. Given the importance of mentorship influence in residency, if there are issues between a mentor or mentee, arrangements will be made to switch mentors to allow for a positive experience, and the specific issues will be addressed on a case by case basis by the Mentorship Program Director, in collaboration with the RPC.

7. A detailed list of objectives to be met will be provided to the mentors. Details of discussions between the mentor and mentee will remain confidential.

8. A minimum of 3 meetings per year (every 4 months) are to be documented by the mentors and both parties signing a checked objectives list. Additional meetings would be encouraged, but don’t require documentation. Meetings will be scheduled and objective forms will be sent via WebEval.

9. The mentors should provide contact information to mentees for easy access during times of crisis, acting like a “support line” at times of need. The mentors should also take the responsibility of helping their mentee with social or academic conflicts and setbacks when appropriate.

10. Mentees will be given feedback evaluations, which will be kept confidential, but will be used to evaluate the mentors and the mentorship program by the mentorship program director. Feedback evaluations will also aid in providing better mentorship support for future residents.

In summary, the role of the mentor should be similar to that of a parent or an older sibling. The mentor should act as a role model for the resident, while providing him/her with guidance during the personal and professional challenges of residency training. The mentors are also taking responsibility for their individual resident mentees and are encouraged to get involved in resolving conflicts and issues the resident may face during his/her training. This process prevents the “falling through the cracks” of resident concerns and focuses attention on the education and training of each individual resident.

Sincerely,

Ben Deheshi, MD, MSc, FRCSC
Mentorship Program Director
bdeheshi@rogers.com
Tel: (905) 387-9711 ext. 66358
Fax: (905) 575-6343
Mentorship Program Director

Role Description

The Mentorship Program Director (MPD) will be responsible for assigning a junior faculty mentor to all incoming and current PGY1 residents. The MPD will also be responsible for ensuring that the mentor and mentee meet on a regular basis to provide career development and psychosocial support including self-esteem and self-efficacy assessments for the mentee. The MPD will also be responsible to deal with any issues that may arise with respect to the mentor-mentee relationship. The MPD will ensure that the process of transferring to a new mentor based on subspecialty interest is carried out by the mentor-mentee team in a timely and seamless fashion. Administrative support will be provided for this position.
Mentorship Program - Meeting Documentation

Note: To protect the resident's confidentiality, the objectives form is only a checklist to be documented and acknowledge. You may document issues or concerns for your own confidential records. If there are issues that warrant discussion with the Program Director, Associate Program Director, or the Mentorship Director, they can be discussed in further detail with the consent of the resident and mentor.

Did the resident raise any issues or concerns?
- [ ] No
- [ ] Yes

If yes, were these concerns related to one or more of the following:
- [ ] Academic
- [ ] Personal
- [ ] Professional
- [ ] Faculty
- [ ] Research
- [ ] Allied Health Team

If yes, were you able to resolve those issues or concerns?
- [ ] N/A
- [ ] No
- [ ] Yes

Prior to the meeting, did any of the academic faculty or the program director raise any issues or concerns regarding your resident?
- [ ] N/A
- [ ] No
- [ ] Yes

If yes, did you communicate those issues to the resident?
- [ ] N/A
- [ ] No
- [ ] Yes

If no, please explain why issue was not communicated to resident:

If yes, were you able to resolve those issues and come up with solutions?
- [ ] N/A
- [ ] No
- [ ] Yes

Did you discuss the resident's academic progress?
- [ ] No
- [ ] Yes

Did you discuss the resident's clinical / professional progress?
- [ ] No
- [ ] Yes

Did you discuss the resident's research / educational progress?
- [ ] No
- [ ] Yes
Did you discuss the resident’s personal life and progress?
○ No
○ Yes

Did you discuss the resident’s subspecialty interests?
○ No
○ Yes

Did you discuss fellowships and applications?
○ No
○ Yes

Did you provide contact information for emergency or crisis situations?
○ No
○ Yes

Did you make arrangements for the next meeting?
○ No
○ Yes

If yes, please provide date: ____________________________

Do you feel confident in continuing to provide mentorship to this resident?
○ No
○ Yes

Do you think that a meeting with a mentorship director or program directors is necessary to address outstanding concerns or issues?
○ No
○ Yes

If yes, has the resident agreed to the meeting?
○ N/A
○ No
○ Yes

If yes, does the resident wish to be present at the meeting?
○ N/A
○ No
○ Yes

Comments:

Resident: I confirm that a meeting with my mentor did take place on the above stated date, and that the above documentation of that meeting is accurate
○ No
○ Yes

Comments:

The following will be displayed on forms where feedback is enabled...
(for the evaluator to answer...)

* Did you have an opportunity to meet with this trainee to discuss their performance?
○ Yes
(for the evaluatee to answer...)

* Did you have an opportunity to discuss your performance with your preceptor/supervisor?
  - Yes
  - No

* Are you in agreement with this assessment?
  - Yes
  - No

Please enter any comments you have (if any) on this evaluation.
The concept of mentor was first described by Homer in the Odyssey, personified in the character Mentor, the “wise and trusted counselor.” Physicians can be excellent mentors because of their motivation to serve, to share knowledge and experience, and their commitment to caring. Mentoring as defined by the Study Committee on Postgraduate Medical and Dental Education is “a process whereby an experienced, highly regarded, empathetic mentor guides another individual in the development and re-examination of their own ideas, learning and personal and professional development. The mentor achieves this by listening or talking in confidence to the mentee.”

Mentors have wisdom and experience worth seeking out. They are people who are willing to spend their time to guarantee a protégé’s success. Mentors are especially helpful when they share personal knowledge, advice, and experience, provide feedback about performance, and help mentees understand professional culture, traditions, networks and opportunities.

My career attests to the need for good mentors. There were no physicians in my family, but I was fortunate to find mentors who used their professional networks to introduce me to medical school faculty and to distinguished and successful professionals in the community.

During medical school, many of my teachers taught me well and served as exceptional role models. The best were smart, tough, fair, demanding, and supportive. They were also kind, humane, compassionate physicians caring for the poor, and always treating the sick and suffering with respect and dignity.

During residency, the faculty and more senior residents expected far more work and set a higher expectation for me than before. But they set the same high standard for everyone. My mentor during my endocrine fellowship was not a warm and communicative person, but he demanded curiosity, pursuit of excellence, hard work, critical thinking, and excellent communication skills.

I have been fortunate to have had many excellent mentors during my academic career who helped me through many important experiences and gave me much wise advice, but it is the wise questions they asked me at critical points that I remember most.

When I was concluding my negotiation for my first faculty position, my chairman of Medicine asked me, “If you could do anything, what would you do?” I had never been asked that before—I never even asked myself that question—but I quickly formulated my answer, a different one than what we had negotiated. His response was, “Why don’t you do that and I will help.”

I followed my passion, with his help and guidance, along a different professional path.

Later, one of my patients, the president of the university, asked me during his office visit with me, “What are you going to do next in your career and professional life?” I answered, “I have been wondering about that and I have no idea.”

His next question was: “What did you want to do before you were professionalized?” I reflected back and explained that I had been a history major and had thought I would be a history professor. Although I had no clear idea what it meant, I said I thought maybe I would become the president of a small college. He asked, “Why don’t you do that?” My response was, “Because I have been professionalized.” Then he said, “You are better prepared than you think, and if you want to pursue that path I will help.” He helped, and again I changed my professional trajectory.

I tell these stories to emphasize how important teaching, coaching, and mentoring can be in our personal and professional development, and to illustrate the importance of mentors, mentoring, and coaching.

Although we intuitively know the definitions of each of these important roles and functions, let’s look at them again:

- Teaching is “to cause one to know something, to know how, to guide the studies, to impart knowledge, to instruct by precept, example, or experience.”
- A coach is “a private tutor who instructs and/or trains players, athletes, musicians in the fundamentals, skills and intricacies to improve performance.”
- A mentor is “a trusted counselor guiding the professional development of an individual.”

There is much overlap in these functions, and it is important to recognize that good mentors are all of these things, and that they change their techniques and functions over time based on the needs of those they mentor.

We recently surveyed small numbers of AΩΑ members about what they would most like to contribute to medicine. The great majority responded, “to mentor undergraduate students, medical students, and/or young, less experienced
Mentoring and coaching in medicine

physicians.” If that describes you, I encourage you to seek out mentors for your professional development, and to serve as mentors to others.

The process of professional development is complex. Professionals must first acquire knowledge and the skills of their profession through study and experiential learning. But true professional expertise comes through practice and constant feedback, often from a mentoring relationship with a senior colleague. The mentee learns and internalizes the profession’s attitudes and values, most often with a mentor. Mentoring is an iterative process analogous in many ways to preparing for and embarking on an expedition.

Each mentor/mentee relationship must be based on the common goal of advancing the educational, personal, and professional growth of the mentee. Although there is no single successful mentoring model, there are identified characteristics of good mentors and mentees. Five basic elements for successful mentoring relationships have been described as:

- The relationship focuses on achievement or acquisition of knowledge
- It consists of emotional and psychological support, direct assistance with career and professional development, and role modeling
- Both mentor and mentee derive tangible benefits
- The relationship involves direct interaction, and is personal in nature
- It emphasizes the mentor’s greater experiences, influences, and achievements in the profession or organization.

Good mentors inspire others to be like them because of aspects of their character, ethics, and expertise, and their accessibility and approachability. They respect and are respected by their peers.

Some general principles for mentoring are set out in the tables following. Hopefully, they will help guide mentors and mentees in this complex and developmental professional relationship of mentoring.

When I reflect on the people who had the greatest influence on me, I think of my coaches. From my first competitive swimming coach at the YMCA, to my swimming and water polo coaches in high school, junior college, and at the university, coaches were the most influential people in my life and early development. Each one coached me for many hours each day and over long periods, effectively coaching the required skills, and teaching me how to train and persevere, set high goals and aspirations, and improve through practice and repetition. They taught me how to compete and to understand the value of competition. I experienced the joy of improving, succeeding, and winning. They were also mentors who helped me to develop good values, to reflect and change, and to work as a team member for a common goal. I also learned about quantitative data, that the final time or score was not negotiable.

Recently, Dr. Atul Gawande published an interesting article in the New Yorker magazine, “Personal Best: Top Athletes and Singers Have Coaches, Should You?” In the article, he points out that in our traditional educational and professional process there is a perception that after a defined amount of time a student no longer needs instruction. It is presumed that after a certain point you go the rest of the way on your own by practicing what you have learned.

<table>
<thead>
<tr>
<th>Table 1: Tips for Good Mentoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Assessment</strong></td>
</tr>
<tr>
<td>Commit to mentoring</td>
</tr>
<tr>
<td>Have a clear understanding of your motivation to mentor</td>
</tr>
<tr>
<td>Mentor based on a realistic assessment of your skills and leadership abilities</td>
</tr>
<tr>
<td>Recognize barriers to good mentoring that often relate to time and be realistic about your time commitment</td>
</tr>
<tr>
<td>Ensure a noncompetitive relationship</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Set the Principles</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop mutual respect</td>
</tr>
<tr>
<td>Develop good communications and problem solving strategies</td>
</tr>
<tr>
<td>Emphasize ethics and professional values</td>
</tr>
<tr>
<td>Be direct and honest</td>
</tr>
<tr>
<td>Commit to confidentiality</td>
</tr>
<tr>
<td>Listen carefully to understand</td>
</tr>
<tr>
<td>Clearly communicate your expectations</td>
</tr>
<tr>
<td>Be flexible and adaptable</td>
</tr>
<tr>
<td>Be fair and just</td>
</tr>
<tr>
<td>Be nonjudgmental in the relationship</td>
</tr>
<tr>
<td>Communicate hope and optimism</td>
</tr>
<tr>
<td>Advise, don’t dictate or be autocratic</td>
</tr>
<tr>
<td>Give constructive criticism</td>
</tr>
<tr>
<td>Celebrate success</td>
</tr>
<tr>
<td>Be reliable</td>
</tr>
<tr>
<td>Nurture self-sufficiency</td>
</tr>
<tr>
<td>Share yourself</td>
</tr>
<tr>
<td>Use common sense</td>
</tr>
<tr>
<td>Remember career development is an evolutionary process</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Self-Assessment</strong></th>
<th><strong>Mentor</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• What are you good or best at</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
<tr>
<td>• What are you passionate about?</td>
<td></td>
</tr>
<tr>
<td>• What gives you the most joy?</td>
<td></td>
</tr>
<tr>
<td>• What are you good or best at doing?</td>
<td></td>
</tr>
</tbody>
</table>
In contrast, coaching holds that no matter how well prepared people are after their education and training, few can achieve and maintain their best performance on their own. Most people continue to practice what they are already good at, but need an outside perspective to learn how to continue to improve.

Good coaches or mentors can observe a performance and break it down into crucial individual components, then make suggestions about how to improve. A good coach makes you aware of where you are falling short. Then, with the coach’s feedback and suggestions and your own self-effacement and personal practice, you can move forward.

There are currently no recognized coaches in medicine. The practice of medicine is largely unwitnessed by anyone. After a number of years of “practice,” a doctor is considered an expert forever. But this is clearly not true. Gawande writes: “As I went along, I compared my results against national data, and I began beating the averages. My rates of complications moved steadily lower and lower. And then, a couple of years ago, they didn’t. It started to seem that the only direction things could go from here was the wrong one.” Recalling an afternoon spent with a tennis coach improving his serve, Gawande decided what he needed was a surgical coach. He enlisted a former mentor who observed him in practice and made many helpful suggestions for improvement in his operations. With that coaching, he was successful in improving performance, and hopefully patient outcomes.

Gawande concludes, “Coaching done well may be the most effective intervention designed for human performance.” He writes, “In the past year, I’ve thought nothing of asking my hospital to spend some hundred thousand dollars to upgrade the surgical equipment I use, in the vague hope of giving me finer precision and reducing complications. . . But the three or four hours I’ve spent with [my coach] each month have almost certainly added more to my capabilities than any of this.”

While many of us empirically know the value and importance of teaching, mentoring, and coaching in professional development and in medicine, the effects of mentoring are difficult to measure and the literature is limited. Among the perceived benefits of mentoring include greater satisfaction in the profession, help with and a widening of career choices, improved coping skills, increased social support, improved professional development, improved bedside and learning skills, better ability to monitor personal development, improved professional behavior, broader educational experience, and increased networking.

Our profession requires us to be continual students and learners and show continual improvement as physicians. All of us can use good teachers, mentors, and coaches.

Physicians have always been teachers. We often think about teaching medicine in the traditional sense of lectures, case presentations, ward rounds, surgery, and other learning experiences. I believe we should view mentoring as a professional obligation and seek opportunities to mentor others.

I hope you will read and reflect on mentors, mentoring, and coaching and pursue opportunities to give back to others what you have learned and experienced preparing for and practicing in medicine.

Richard L. Byyny, MD, FACP
Executive Director, Alpha Omega Alpha
Editor, The Pharos

<table>
<thead>
<tr>
<th>Table 2: Working with Your Mentee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find joy in your mentee’s improvement and successes</td>
</tr>
<tr>
<td>Have a clear understanding of the expectations and goals of your mentee</td>
</tr>
<tr>
<td>Encourage your mentee’s ideas and work</td>
</tr>
<tr>
<td>Provide constructive and useful critique of your mentee’s work</td>
</tr>
<tr>
<td>Challenge your mentee to expand and improve his abilities</td>
</tr>
<tr>
<td>Respect the uniqueness and contributions of your mentee</td>
</tr>
<tr>
<td>Acknowledge contributions of your mentee</td>
</tr>
<tr>
<td>Help your mentee develop humility</td>
</tr>
<tr>
<td>Help your mentee develop self-esteem</td>
</tr>
<tr>
<td>Be aware of biases and don’t let assumptions interfere</td>
</tr>
<tr>
<td>Encourage your mentee to take on leadership roles</td>
</tr>
<tr>
<td>Observe your mentee at her professional work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 3: Tips for Mentors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Assessment</strong></td>
</tr>
<tr>
<td>Have a clear understanding of your motivation to be mentored</td>
</tr>
<tr>
<td>Select a mentor based on your short-term goals and career interests</td>
</tr>
<tr>
<td>Have a clear understanding of your expectations of your mentor</td>
</tr>
<tr>
<td>Be proactive to find mentors</td>
</tr>
<tr>
<td>Be realistic about time commitments</td>
</tr>
<tr>
<td>Ensure a noncompetitive relationship</td>
</tr>
<tr>
<td>Determine your areas of need</td>
</tr>
<tr>
<td>Determine the help needed to reach your potential and goals</td>
</tr>
<tr>
<td>Decide what you hope to gain from mentoring</td>
</tr>
<tr>
<td><strong>Learn</strong></td>
</tr>
<tr>
<td>Actively listen and contribute to the conversations</td>
</tr>
<tr>
<td>Do your homework</td>
</tr>
<tr>
<td>Use other resources to look up useful information</td>
</tr>
<tr>
<td>Demonstrate the ability to set agendas</td>
</tr>
<tr>
<td>Ask what knowledge, skills, and expertise you need to develop further</td>
</tr>
<tr>
<td>Discuss what you believe to be the strengths you already have</td>
</tr>
<tr>
<td>Be aware when the relationship has run its course</td>
</tr>
<tr>
<td>Say “thank you”</td>
</tr>
<tr>
<td>Celebrate accomplishments</td>
</tr>
<tr>
<td>Give back to the profession by mentoring others</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set the Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate your expectations</td>
</tr>
<tr>
<td>Be reliable</td>
</tr>
<tr>
<td>Be honest</td>
</tr>
<tr>
<td>Follow through</td>
</tr>
<tr>
<td>Accept criticism</td>
</tr>
<tr>
<td>Continually reassess performance</td>
</tr>
<tr>
<td>Be respectful</td>
</tr>
<tr>
<td>Act on your own initiative</td>
</tr>
</tbody>
</table>
Internal Memo

Date: June 30, 2010

To: All Surgeons
All Anesthetists
All Operating Room Staff

From: Dr. Wes Stephen – Chief of Surgery
Dr. Richard Kolesar – Chief of Anesthesia
Leslie Gauthier – Director of Perioperative Services

Subject: Surgical Safety Checklist (SSCL)

As of July 01\textsuperscript{st}, 2010 all three phases of the Surgical Safety Checklist must be completed for all surgical cases (scheduled and emergent/urgent) performed in the Operating Rooms at HHS. The MRP Surgeon and Anesthetist must be present for all three phases of the SSCL. Delegation of the SSCL to fellows and residents assisting in the operating room is not acceptable. No aspect of the patient’s surgical care may proceed prior to the SSCL briefing including: the placement of monitors, initiation of IV access, sedation, or airway management.

In the event that the patient has multiple procedures performed by multiple surgeons, the surgeon who initiates the patient’s surgery will conduct the initial briefing and procedural pause. The surgeon who completes the surgery will be responsible to complete the final debriefing.

We recognize that there will be very exceptional cases (e.g. priority 1 cases where the patient’s life is truly at risk) where in the interest of the patient, surgery will start prior to the initial briefing. In these exceptional cases final debriefing is still required. The Surgical Site Lead, the Anesthesia Site Lead, and the OR Clinical Manager will review emergent cases where the initial briefing was not completed as part of the OR’s mandated review of the emergent/urgent cases.

Please find attached the HHS modified template for the SSCL. There is one template for a “long case” (over one hour) and a second template for “short cases” (less than one hour). Copies of these templates will be available in the operating rooms to assist the team with mastering the key elements of SSCL.

We would like to thank the entire operative team for their commitment to this initiative.

June 2010
## BRIEFING – Before induction of anesthesia

### Hand-off from ER, Nursing Unit or ICU
- All team members introduce themselves by name and role
- Anesthesia equipment safety check completed
- Patient information confirmed:
  - Identity (2 identifiers)
  - Consent(s)
  - Site and procedure
  - Site, side and level marked
  - Clinical documentation
  - History, physical, labs, biopsy and x-rays
- Review final test results
- ASA Class
- Allergies
- Medications:
  - Antibiotic prophylaxis: double dose?
  - Glycemic control
  - Beta blockers
  - Anticoagulant therapy (e.g., Warfarin)?
- Difficult Airway / Aspiration Risk
  - Confirm equipment and assistance available
- Surgeon(s) review(s):
  - Specific patient concerns, critical steps, and special instruments or implants
- Anesthesiologist(s) review(s):
  - Specific patient concerns and critical resuscitation plans
- Nurses(s) review(s):
  - Specific patient concerns, sterility indicator results and equipment / implant issues

## BRIEFING (continued)

- Patient positioning and support / Warming devices
- Special precautions
- What is the patient’s weight?
- Is the patient properly grounded?

## TIME OUT – Before skin incision

- Surgeon, Anesthesiologist, and Nurse verbally confirm:
  - Patient
  - Site, side and level
  - Procedure
  - Antibiotic prophylaxis: repeat dose?
  - Final optimal positioning of patient
- “Does anyone have any other questions or concerns before proceeding?”

## DEBRIEFING – Before patient leaves OR

- Surgeon reviews with entire team:
  - Procedure
  - Important intra-operative events
  - Fluid balance / management
- Anesthesiologist reviews with entire team:
- Nurse(s) review(s) with entire team:
  - Instrument / sponge / needle counts
  - Specimen labeling and management
  - Important intraoperative events (including equipment malfunction)
- Changes to post-operative destination?
- Could anything have been done to make this case safer or more efficient?

### Hand-off to PACU / RR, Nursing Unit or ICU

## PATIENT INFORMATION

---

Adapted from the WHO Surgical Safety Checklist, © World Health Organization, 2008

Surgical Safety Checklist: Canada
Short Version 3 with logo, Mar 23, 2010
SURGICAL SAFETY
CHECKLIST for surgery 1 hour or longer
www.safesurgerysaveslives.ca

BRIEFING – Before induction of anesthesia

Hand-off from ER, Nursing Unit or ICU

- All team members introduce themselves by name and role
- Anesthesia equipment safety check completed
- Patient information confirmed
  - Identity (2 identifiers)
  - Consent(s)
  - Site and procedure
  - Site, side and level marked
  - Clinical documentation
  - History, physical, labs, biopsy and x-rays
- Review final test results
- Confirm essential imaging displayed
- ASA Class
- Allergies
- Medications
  - Antibiotic prophylaxis: double dose?
  - Glycemic control
  - Beta blockers
  - Anticoagulant therapy (e.g., Warfarin)?
- VTE Prophylaxis
  - Anticoagulant
  - Mechanical
- Difficult Airway / Aspiration Risk
  - Confirm equipment and assistance available
- Monitoring
  - Pulse oximetry, ECG, BP, arterial line, CVP, temperature and urine catheter

BRIEFING (continued)

- Blood loss
  - Anticipated to be more than 500 ml (adult) or more than 7 ml/kg (child)
  - Blood products required and available
  - Patient grouped, screened and cross matched
- Surgeon(s) review(s)
  - Specific patient concerns, critical steps, and special instruments or implants
- Anesthesiologist(s) review(s)
  - Specific patient concerns and critical resuscitation plans
- Nurses(s) review(s)
  - Specific patient concerns, sterility indicator results and equipment / implant issues
- Patient positioning and support / Warming devices
- Special precautions
- Expected procedure time / Postoperative destination
- What is the patient’s weight?
- Is the patient properly grounded?

TIME OUT – Before skin incision

- Surgeon, Anesthesiologist, and Nurse verbally confirm
  - Patient
  - Site, side and level
  - Procedure
  - Antibiotic prophylaxis: repeat dose?
  - Final optimal positioning of patient
- “Does anyone have any other questions or concerns before proceeding?”

DEBRIEFING – Before patient leaves OR

- Surgeon reviews with entire team
  - Procedure
  - Important intra-operative events
  - Fluid balance / management
- Anesthesiologist reviews with entire team
  - Important intra-operative events
  - Recovery plans (including postoperative ventilation, pain management, glucose and temperature)
- Nurse(s) review(s) with entire team
  - Instrument / sponge / needle counts
  - Specimen labeling and management
  - Important intraoperative events (including equipment malfunction)
- Changes to post-operative destination?
- What are the KEY concerns for this patient’s recovery and management?
- Could anything have been done to make this case safer or more efficient?

Hand-off to PACU / RR, Nursing Unit or ICU

PATIENT INFORMATION

Adapted from the WHO Surgical Safety Checklist, © World Health Organization, 2008
Surgical Safety Checklist: Canada
Long Version 3 with logo, Mar 23, 2010
To:  Physician Chiefs  
From:  Dr. R. McLean  
CC:  Dr. S. Schulman; Dr. S. Puchalski; Rosanne Zimmerman; Sharon Pierson  
Date:  April 5, 2011  
Re:  New Adult VTE Prophylaxis Guidelines

VTE Prophylaxis Guideline for Adults were approved at MAC in March, 2011. The following memo highlights the key content of the guideline and the implications for physician practice. Please communicate these expectations to your department.

**Purpose:**
VTE is one of the most common complications contributing to increased length of stay and/or hospital death. As such, standardized best practices are required to ensure that patients are assessed for their risk of VTE and receive appropriate Thromboembolism Prophylaxis (TP) if indicated.

A recent audit in medicine, surgery and orthopedics indicated that 63%-93% of HHS patients receive appropriate VTE prophylaxis. Best Practice Guidelines for adult VTE Prophylaxis were developed to support further standardization of practice throughout HHS and ensure all patients receive appropriate TP. In 2011, all accredited hospitals in Canada are required to provide evidence of best practice VTE Prophylaxis.

**Standardized Practice:**
- Every hospitalized patient should be assessed for VTE risk 1) upon admission 2) with a significant change in clinical status, 3) upon transfer from one type of care to another and 4) at discharge.
- Optimal, evidence-based TP should be provided to every hospitalized patient for whom it is indicated based on an assessment of their risk of thrombosis, their risk of bleeding, weight and age and treatment options available.
- Hospitalized patients waiting for surgery should receive TP, unless contraindicated.

**How this will affect Physicians**
- All hospitalized patients identified with VTE risk will receive TP, unless contraindicated.
- If TP is not ordered, the ordering physician needs to document risk assessment and rationale in the physician notes.
- If surgery is postponed, the ordering physician needs to ensure TP is given appropriately.
- HHS Approved Order Sets have been reviewed by Thrombosis Service and modifications to current order sets will be recommended to meet TP best practice.
guidelines. All new order sets developed must be consistent with the official TP guidelines and appropriate order sets reviewed by the Thrombosis Service.

- Nursing/Allied Health will receive education regarding VTE risk assessment and TP guidelines. Nurses are encouraged to consult physicians: a) when a patient with identified VTE risk has no TP ordered, b) when there is significant change in clinical status i.e. length of stay extends beyond 48hrs, patient not ambulating, c) if unclear whether patient is to receive pre-op/pre-procedure TP, and d) if dosing or administration times are unclear.

- TP administration should follow HHS Standard Medication Times Protocol. If required dosing time does not fall within Standard Medication Times Protocol, clearly document administration time in physician orders.

In efforts to support the implementation of the new guidelines you will find “Stop the Clot” stickers on patients charts along with posters in the clinical areas detailing the highlights of the new policy.

Thanks very much to Dr. Sam Schulman for proving his time, leadership and input into the development of these new guidelines for HHS.
1.0 Purpose and Goal Description

1.1 Venous thromboembolism (VTE) is one of the most common complications that may contribute to increased length of stay or hospital death. Hamilton Health Sciences believes that best practices should ensure that hospitalized patients are assessed for their risk of VTE and that they receive appropriate thromboembolism prophylaxis (TP) if indicated.

1.2 This document provides best practice guidelines for Venous Thromboembolism (VTE) prophylaxis for adults.

2.0 Equipment/Supplies

None

3.0 Definitions

Deep Vein Thrombosis (DVT) is a thrombus occurring in one or more deep veins, especially in the legs, where it may produce leg swelling and/or pain.

Pulmonary Embolism (PE) is a thrombus that arises in a deep vein and that embolizes to one or more of the pulmonary arteries where it may result in breathlessness, chest pain, hemoptysis, syncope or death.

Thromboembolism prophylaxis (TP) refers to the use of mechanical methods or anticoagulant medication to prevent VTE from developing in patients who are at risk.

Venous Thromboembolism (VTE) is a thromboembolic event (“Blood clot”) that develops within the venous system and includes both DVT and PE.

4.0 Policy

4.1 Every hospitalized patient should be assessed for VTE risk at 1) the time of admission to hospital, 2) the time of a significant change in clinical status, 3) the time of transfer from one type of care to another and 4) at discharge

4.2 Optimal, evidence-based TP should be provided to every hospitalized patient for whom it is indicated based on an assessment of their risk of thrombosis, their risk of bleeding, weight and age and treatment options available.

4.3 Background and Rationale for Thromboembolism Prophylaxis Guidelines

- The use of TP has been ranked as the number one patient safety
practice for hospitals (Safer Healthcare Now)

- 60-70% of all VTEs are related to hospitalization (either during or within a short time after discharge)
- Without TP, approximately 25% of hospital patients will develop asymptomatic deep vein thrombosis (DVT)
- The investigation, treatment and management of VTE consumes considerable resources (VTE doubles hospital length of stay and costs of hospital care)
- Randomized trials demonstrate that rates of any DVT, and of symptomatic VTE are significantly reduced by the use of TP
- Evidence-based guidelines have, since 1986, recommended the routine use of TP for most hospitalized patients
- TP has repeatedly been shown to be cost-saving, if used appropriately

Therefore, routine evaluation of hospital patients for VTE risk and the provision of TP is a standard of care.

4.4 Optimal thromboembolism prophylaxis

4.4.1 Optimal thromboembolism prophylaxis is determined based on the following considerations:

- **Patient population** at risk
- **Modality** for decreasing the patient’s risks of VTE and bleeding: 
  a) mobilization  
  b) mechanical  
  c) pharmacological dose (if an anticoagulant)

- **Timing** after admission, surgery or transfer within the institution and on discharge
- **Adherence** (based on assessment of patient’s adherence history and resources available)
- **Duration** (while hospitalized and on discharge)

4.5 Guiding Principles for Optimal Thromboembolism Prophylaxis

4.5.1 **Consistency** - keep the number of thromboembolism prophylactic options to a minimum both within and between patient groups to ensure patient safety and considerations of costs

4.5.2 **Routine** - since the overwhelming majority of hospital patients require thromboembolism prophylaxis, routine TP will be ordered unless there is an active decision and physician order and written rationale to withhold it

4.5.3 **Continuous** - doses of low molecular weight heparin (LMWH) are not held unless there is evidence of active bleeding or there is a major increase in bleeding risk. In particular, there is no need to withhold q HS (=bedtime/nightly) administration of LMWH for patients who are anticipated to have an invasive procedure the following day or to hold Q12H administration of unfractionated heparin (UFH) 5,000 units for a procedure the same day. Refer to HHS Medication Administration Decision Guides-LMWH within [Standard Administration Times Protocol](#) for further instructions

4.5.4 **Use of order sets** - the use of order sets is the most effective strategy to
ensure that TP best practices are followed. All new order sets developed must be consistent with the official TP guidelines and appropriate order sets reviewed by the Thrombosis Service.

4.5.5 **Reassessment** - at transitions of care within HHS (post-operative, transfer to or from the ICU, transfer to another service) the need for reassessment will be communicated in the transfer orders. Follow-up is required if no documentation of VTE prophylaxis. At the time of transfer of accountability to another acute care hospital, rehabilitation centre, long-term care facility, nursing home or discharge home, a written decision should be made by the discharging physician to discontinue TP (as in most situations) or to continue TP, after the transition.

4.5.6 **Periodic Review** - update guideline as new evidence becomes available.

6.0 **General Approach to Thromboembolism Prophylaxis**

6.1 A three step approach is recommended which includes:

1) Determining if the patient should not have thromboembolism prophylaxis
2) Determining if anticoagulant thromboembolism prophylaxis is contraindicated
3) Determining and providing the appropriate prophylaxis for eligible patients

6.1.1 **Step 1 - Thromboembolism prophylaxis is not indicated if:**
- Patient is fully ambulatory and expected to have a length of stay less than 48 hours, TP is generally not indicated. On day 3, the patient should be reassessed for TP
- If TP is not ordered, health teaching will include encouraging and supporting the patient to remain as mobile as possible

*NOTE: Based on the assessment of any member of the healthcare team, if a patient’s clinical status changes significantly and the VTE risk has increased, the need to reassess the indication for TP should be communicated by the team member to the attending physician immediately.*

6.1.2 **Step 2 – Anticoagulant thromboembolism prophylaxis is CONTRAINDED if:**
- Patient is actively bleeding or has a high risk of bleeding. (In this situation, appropriately sized bilateral calf-length GCS or pneumatic compression device are provided).
- Patient should be reassessed daily. (if an assessment indicates that their high bleeding risk decreases, LMWH should be ordered/provided).
- If patient has a history of heparin-induced thrombocytopenia (HIT) (within the previous 3 months), UFH and LMWH are contraindicated. (In this case, the Thrombosis Service should be contacted to determine the most appropriate TP)
NOTE:

**Absolute contraindications** to anticoagulant TP are: active clinically important bleeding, platelets less than $30 \times 10^9 / L$, major bleeding disorder, heparin-induced thrombocytopenia within the past 3 months (a contraindication to heparin and LMWH).

**Relative contraindications** to anticoagulant TP are: recent intracranial hemorrhage, recent perispinal bleeding, recent high-risk bleeding surgery, planned removal/insertion of epidural catheter (see epidural catheter order sets).

### 6.1.3 Step 3 – Determining and providing prophylaxis
- Use appropriate order sets and approved formulary options

Other Considerations include:

In general, for patients with a weight less than 40 kg and LMWH is used, it is recommended that a dose reduction be considered.
- In general, for patients with a weight greater than 120 kg, it is suggested that a TP dose increase be considered.
- Dosage reductions may be required but for prophylactic doses of dalteparin is no dosage reduction is required for renal impairment.
- Thrombosis services and/or pharmacists should be used as a resource when dosages or treatment are in question.

### 7.0 Documentation
If thromboembolism prophylaxis is not ordered, the ordering physician needs to document risk assessment and rationale in the physician notes. Medication administration of thromboembolism prophylaxis including time of administration is documented by nurse on Medication Administration Record.

### 8.0 Cross References
Internal HHS documentation:
- HHS Order sets
- Education sources
- HHS Standard Medication Times Protocol

### 9.0 External References


Sunnybrook Hospital Venous Thromboprophylaxis Guidelines, 2010.

10.0 Developed By
VP Medical and Quality
Quality Patient Safety & Clinical Resource Management- Director, Manager and Patient Safety Specialists
Thrombosis Service (Chief, Nursing)
Surgical Service
Chief of Pharmacy Practice
Nursing Practice Chief
Medical Director of Clinical Informatics

11.0 In Consultation With
Medical Services

12.0 Approved By
MAC

Keyword Assignment Deep vein thrombosis, pulmonary embolism, prophylaxis, anticoagulation, VTE,
## Appendix 1 – Identification of Patients at Risk

<table>
<thead>
<tr>
<th>Risk</th>
<th>Patient Types</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Ambulatory (no risk factors); Observation with ELOS &lt; 2 days; Same Day or Minor Surgery; Uncomplicated/short duration laparoscopic surgery; breast surgery; head &amp; neck surgery; distal leg fracture (age less than 70, no cancer/previous VTE); upper extremity surgery and easy ambulation</td>
<td>Ambulation</td>
</tr>
<tr>
<td>Moderate</td>
<td>All patients not low or high risk (most medical/surgical patients, respiratory insufficiency, heart failure, acute infections or inflammatory disease)</td>
<td>Provide appropriate TP-use order sets as appropriate, or contact thrombosis service or pharmacists for guidance as needed.</td>
</tr>
<tr>
<td>High</td>
<td>Lower extremity arthroplasty; hip, pelvic or severe lower extremity fractures; acute spinal cord injury with paresis; multiple major trauma; abdominal or pelvic surgery for cancer</td>
<td>Provide appropriate TP-use order sets as appropriate, or contact thrombosis service or pharmacists for guidance as needed.</td>
</tr>
</tbody>
</table>

**OF DOCUMENT**

For internal use only at HHS. Persons reviewing a hard copy of this document should refer to the electronic version posted in the Policy Library to ensure this copy is current.
Hamilton General Hospital

Orthopaedic Surgery Rotation

2010-2011

CTU Director

Dr. Brian Drew
Welcome to the Hamilton General Hospital!

Orthopaedics at the General exposes you to Trauma, Spine, Upper Extremity, Sports, and Foot & Ankle. You will see and learn a lot during your rotation. If you have any issues, please contact the CTU director.

In addition to reviewing the goals and objectives in the McMaster Residency Manual, you are responsible for the information in this handbook.
1. Goals & Objectives
   1) Trauma ......................................................... 1
   2) Foot & Ankle ................................................. 2
   3) Sports .............................................................. 3
   4) Spine ............................................................. 4-7
2. Rotation Schedule ................................................................. 8
3. Teaching Sessions ................................................................. 9-11
4. Expectations & Responsibilities
   1) Fracture Clinic .................................................. 12
   2) On Call .......................................................... 13
   3) Admitting Patients ............................................ 14
   4) ER Patients ...................................................... 14
   5) In Patients ......................................................... 15
   6) Trauma ............................................................. 16-17
   7) OR Cases ......................................................... 18
   8) Post-op Instructions .......................................... 19
   9) Commonly Used Medications .......................... 20-21
5. Staff Contact List ............................................................... 22-23
6. Common Extensions .......................................................... 24
7. Resources ........................................................................... 25
Goals & Objectives

McMaster Objectives in Trauma:

Junior Resident

Clinical Trauma Rotation

1. Perform a thorough history, physical and order investigations for the emergent single limb injured patient
2. Become proficient in the closed management of adult fractures in the ER. Including appropriate casting techniques for both upper and lower extremity fractures
3. Understand the approach to a trauma patient and triage the injuries appropriately
4. Become proficient in ATLS assessment and basic management skills. Be able to describe life saving interventions such as chest tubes, central lines, intubation pericardiocentesis and surgical airways.
5. Appropriately work up outpatient trauma patients and order appropriate investigations
6. Become proficient in interpreting x-rays and CT scans of severe fracture patterns
7. Be exposed to multiply traumatized patients

Surgical objectives:

1. Gain exposure to common surgical approaches to each joint and bone of the appendicular skeleton
2. Gain proficiency in basic intra operative fracture reduction techniques
3. Become proficient with the use of drills, taps and screws including lag screw technique
4. Assist in the exposure and closure of all trauma cases
5. Assist multiple limb injured cases
6. Assist at pelvic and acetabular fixation
7. Be able to perform hip/femur, forearm, tibia, ankle approaches, reductions and definitive hardware placement
8. Be familiar and able to perform all pelvic/limb ex-fix procedures
McMaster Objectives in Foot and Ankle: HGH Site

*Junior Resident*

Clinical Trauma Rotation

1. Perform a thorough history, physical and order investigations on patients with foot and ankle pathology
2. Gain knowledge in the interpretation of common imaging modalities in a foot and ankle practice
3. Know the treatment options for common foot and ankle pathology (ankle OA, subtalar OA, posterior tibialis tendon dysfunction, talus AVN)

Surgical objectives:

1. Know and perform the common approaches to the foot and ankle
2. Understand appropriate soft tissue handling in foot and ankle cases
3. Be able to do basic joint decortication and bone graft in foot and ankle fusions
McMaster Objectives in Sports Medicine: HGH Site

Junior Resident

Clinical Sports Rotation Objectives:

1. Be able to accurately assess shoulder and elbow injuries
2. Understand the effects of repetitive stress on shoulder and elbow mechanics and how pathology develops.
3. Gain knowledge on appropriate investigations for shoulder and elbow pathology.

Surgical objectives:

1. Know the shoulder surface anatomy and be able to accurately map it out with common portal sites
2. Be able to inject subacromially and into the gleno-humeral joint
3. Be able to introduce the scope and perform the following:
   a) Diagnostic knee scope
   b) Diagnostic shoulder scope - includes establishing anterior portal reliably, inserting tacks/suture anchors
   c) Arthroscopic Subacromial Bursectomy
   d) Arthroscopic Acromioplasty
   e) Mini-open exposure and repair of Rotator Cuff tear
4. Assist in the exposure and closure of all open cases
McMaster Objectives in Adult Spine:

*Junior Resident*

**NEUROLOGICAL**
1. know the motor and sensory distribution of the major roots (C4-8 and L2-S4) and how to examine them
2. understand the straight-leg raising test and what it means - limitations, accuracy
3. know basic long tract signs and what they mean (Hoffman’s, Babinski, clonus)
4. understand the concept of sacral sparing in trauma
5. understand the concept of postoperative reinnervation dysesthesia

**BIOMECHANICS**
1. understand basics of loading and kinetics in the C/T/L-spine – anterior/posterior column, disc, constraint, coupling
2. understand “creep” in soft tissue mechanics

**BEHAVIOUR**
1. understand the differences between disease, pain and disability
2. understand the concept of secondary gain
3. know Waddell’s criteria and their significance

**SURGERY**
1. describe anatomic landmarks and technique for common approaches – A/P neck, posterior thoracic, posterior lumbar
2. discuss issues of capillary closing pressure, retraction, muscle perfusion/injury
3. discuss landmarks for targeting cervical lateral mass and lumbar pedicle screws
4. describe technique of graft harvest and performance of fusion
TRAUMA
1. understand Denis’ 3-column spine concept and his 6-types injury classification
2. understand McAffee’s concept of the stable burst fracture
3. understand Ben Allen’s mechanistic concept of C-spine trauma
4. understand placement of cervical traction tongs, reduction maneuvers for neck
5. discuss high-dose steroids and why/why not

DEGENERATIVE-NECK
1. clinical syndromes – cord, root(s), pain, whiplash
2. natural history of these syndromes
3. nonoperative care
4. anterior/posterior treatment options
5. role/outcomes/limitations of fusion and versus arthroplasty

DEGENERATIVE-THORACIC/LUMBAR
1. clinical syndromes – cord, root(s), pain
2. natural history of these syndromes
3. nonoperative care
4. anterior/posterior treatment options
5. role/outcomes/limitations of fusion and versus arthroplasty

TUMOR/INFECTION
1. common presentation of primary/secondary spine tumors
2. workup for unknown primary
3. local and systemic staging
4. imaging differences – infection versus tumor

SCOLIOSIS
1. know the different types of scoliosis in kids and adults
2. know King’s classification of AIS and understand it’s becoming outdated but concepts are solid
3. know principles of Lenke’s classification of AIS
4. understand natural history of the curve/role of bracing/non-op care
5. morbidity – cardiorespiratory, future DDD/pain
McMaster Objectives in Adult Spine:

Senior Resident

NEUROLOGICAL
1. understand the bulbocavernosus reflex and its importance, normal/abnormal
2. be able to describe a complete ASIA assessment examination
3. understand the spectrum of cauda equine syndrome and issues in timing/urgency

BIOMECHANICS
1. understand loading behavior/limitations of anterior/posterior spine constructs
2. discuss strategies to optimize screw fixation strength

BEHAVIOUR
1. distinguish somatic/neuropathic pain, allodynia
2. perioperative pain control/narcotics use-and-abuse, multimodality, habituation versus addiction, weaning

SURGERY
1. perform common approaches (A/P neck, posterior thoracic/lumbar) safely
2. landmark and describe anterior T/L approaches
3. describe the prespinal vascular and neuroanatomy at low lumbar levels
4. safely insert cervical lateral mass and lumbar pedicle screws
discuss technique for odontoid and C1/2 screws, thoracic pedicle screws, anterior screw fixation in the C/T/L spine

TRAUMA
1. plan and do implant constructs for common injuries
2. discuss issues in timing versus prognosis for neurological recovery
3. discuss issues in timing of surgery for thoracolumbar ORIF in polytrauma

DEGENERATIVE-NECK
1. perform most of the procedure in common cases

DEGENERATIVE-THORACIC/LUMBAR
1. perform most of the procedure in common cases

TUMOR/INFECTION
1. how to treat
2. indications for surgery

SCOLIOSIS
1. management of congenital scoliosis
2. indications for anterior versus posterior, combined, staging
3. plan common constructs – anterior, posterior
4. perioperative management – adolescent, adult

**Daily Teaching Sessions**

Daily from 0700 - 0800 in the Noonan Conference Room

- Monday – Spine (Staff)
- Tuesday – OTA Lectures (Staff)
- Wednesday – Grand Rounds
- Thursday – Weekly Ortho Trauma Review
- Friday – Chief’s Trauma Case presentation

**OTA Lectures**

- Lecture schedule follows, please note dates and review lectures.
- OTA Lecture Series available on www.ota.org
- Entire Series Downloaded onto Ortho Group Laptop
<table>
<thead>
<tr>
<th>File Number</th>
<th>Lecture Name</th>
<th>Staff</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hip Dislocations and Femoral Head Fractures</td>
<td>Petrisor</td>
<td>July 5, 2011</td>
</tr>
<tr>
<td>2</td>
<td>Femoral Neck Fractures</td>
<td>Williams</td>
<td>July 12, 2011</td>
</tr>
<tr>
<td>3</td>
<td>Intertrochanteric Hip Fractures</td>
<td>Williams</td>
<td>July 12, 2011</td>
</tr>
<tr>
<td>1</td>
<td>Injuries of the Clavicle, Acromioclavicular Joint and Sternoclavicular Joint</td>
<td>Wong</td>
<td>July 19, 2011</td>
</tr>
<tr>
<td>3</td>
<td>Evaluation and Treatment of Vascular Injury</td>
<td>Sadler</td>
<td>July 26, 2011</td>
</tr>
<tr>
<td>4</td>
<td>Compartment Syndrome</td>
<td>Sadler</td>
<td>July 26, 2011</td>
</tr>
<tr>
<td>3</td>
<td>Proximal Humerus Fractures/Dislocations</td>
<td>Williams</td>
<td>July 12, 2011</td>
</tr>
<tr>
<td>13</td>
<td>Fractures with Soft Tissue Injuries</td>
<td>Rajaratnam</td>
<td>August 16, 2011</td>
</tr>
<tr>
<td>21</td>
<td>Osteomyelitis: Pathophysiology and Treatment Decisions</td>
<td>Kwok</td>
<td>August 23, 2011</td>
</tr>
<tr>
<td>4</td>
<td>Femoral Shaft Fractures</td>
<td>Petrisor</td>
<td>August 30, 2011</td>
</tr>
<tr>
<td>5</td>
<td>Distal Femur Fractures</td>
<td>Petrisor</td>
<td>August 30, 2011</td>
</tr>
<tr>
<td>5</td>
<td>ARDS, Fat Embolism, and Thromboembolic Disease in the Orthopaedic Trauma Patient</td>
<td>Wong</td>
<td>September 6, 2011</td>
</tr>
<tr>
<td>6</td>
<td>Fracture Classification</td>
<td>Wong</td>
<td>September 6, 2011</td>
</tr>
<tr>
<td>4</td>
<td>Fractures of the Humeral Shaft</td>
<td>Williams</td>
<td>September 13, 2011</td>
</tr>
<tr>
<td>5</td>
<td>Fractures of the Distal Humerus</td>
<td>Williams</td>
<td>September 13, 2011</td>
</tr>
<tr>
<td>6</td>
<td>Knee Dislocation</td>
<td>Wong</td>
<td>September 20, 2011</td>
</tr>
<tr>
<td>7</td>
<td>Patella Fractures and Extensor Mechanism Injuries</td>
<td>Wong</td>
<td>September 20, 2011</td>
</tr>
<tr>
<td>19</td>
<td>Nonunions of Long Bones</td>
<td>Kwok</td>
<td>September 27, 2011</td>
</tr>
<tr>
<td>20</td>
<td>Nonunions with Bone Loss</td>
<td>Kwok</td>
<td>September 27, 2011</td>
</tr>
<tr>
<td>6</td>
<td>Traumatic Elbow Instability</td>
<td>Ristevski</td>
<td>October 4, 2011</td>
</tr>
<tr>
<td>7</td>
<td>Olecranon Fractures and Radial Head Fractures</td>
<td>Rajaratnam</td>
<td>October 11, 2011</td>
</tr>
<tr>
<td>8</td>
<td>Forearm Fractures</td>
<td>Rajaratnam</td>
<td>October 11, 2011</td>
</tr>
<tr>
<td>1</td>
<td>Radiographic Evaluation, Anatomy and Classification of Pelvic Ring Injuries</td>
<td>Petrisor</td>
<td>October 18, 2011</td>
</tr>
<tr>
<td>2</td>
<td>Acute Management of Pelvic Ring Injuries</td>
<td>Williams</td>
<td>October 25, 2011</td>
</tr>
<tr>
<td>3</td>
<td>Pelvic Ring Injuries - Definitive Treatment</td>
<td>Williams</td>
<td>October 25, 2011</td>
</tr>
<tr>
<td>9</td>
<td>Distal Radius Fractures</td>
<td>Sadler</td>
<td>November 1, 2011</td>
</tr>
<tr>
<td>10</td>
<td>Carpal Fractures and Dislocations</td>
<td>Rajaratnam</td>
<td>November 8, 2011</td>
</tr>
<tr>
<td>8</td>
<td>Fractures of the Tibial Plateau</td>
<td>Williams</td>
<td>November 15, 2011</td>
</tr>
<tr>
<td>9</td>
<td>Open Fractures of the Tibial Diaphysis</td>
<td>Kwok</td>
<td>November 22, 2011</td>
</tr>
<tr>
<td>10</td>
<td>Closed Fractures of the Tibial Diaphysis</td>
<td>Kwok</td>
<td>November 22, 2011</td>
</tr>
<tr>
<td>11</td>
<td>Tibial Plafond Fractures</td>
<td>Denkers</td>
<td>November 29, 2011</td>
</tr>
<tr>
<td>12</td>
<td>Ankle Fractures</td>
<td>Sadler</td>
<td>December 6, 2011</td>
</tr>
<tr>
<td>Lecture Number</td>
<td>Lecture Title</td>
<td>Presenter</td>
<td>Date</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------------------</td>
</tr>
<tr>
<td>13</td>
<td>Ligamentous and Tendon Injuries about the Ankle</td>
<td>Wong</td>
<td>December 13, 2011</td>
</tr>
<tr>
<td>15</td>
<td>Fractures of the Calcaneus</td>
<td>Petrisor</td>
<td>January 10, 2012</td>
</tr>
<tr>
<td>14</td>
<td>Fractures of the Talus and Subtalar Dislocations</td>
<td>Petrisor</td>
<td>January 17, 2012</td>
</tr>
<tr>
<td>16</td>
<td>Fractures and Dislocations of the Mid-Foot including Lisfranc Injuries</td>
<td>Petrisor</td>
<td>January 17, 2012</td>
</tr>
<tr>
<td>17</td>
<td>Forefoot Fractures</td>
<td>Kwok</td>
<td>January 24, 2012</td>
</tr>
<tr>
<td>18</td>
<td>Traumatic Amputations</td>
<td>Wong</td>
<td>January 31, 2012</td>
</tr>
<tr>
<td>12</td>
<td>Upper Extremity Amputation</td>
<td>Wong</td>
<td>January 31, 2012</td>
</tr>
<tr>
<td>5</td>
<td>Surgical Approaches for Fractures of the Acetabulum</td>
<td>Williams</td>
<td>February 14, 2012</td>
</tr>
<tr>
<td>6</td>
<td>Acetabular Fractures: Surgical Management</td>
<td>Petrisor/Williams</td>
<td>February 14, 2012</td>
</tr>
<tr>
<td>20</td>
<td>Treatment of Peri-Implant Fractures of the Femur</td>
<td>Rajaratnam</td>
<td>February 21, 2012</td>
</tr>
</tbody>
</table>

OTA Lecture Series available on www.ota.org
Entire Series Downloaded onto Ortho Group Laptop
1st Tuesday of each quarter reserved for new resident group orientation
Expectations & Responsibilities

- Be on time - OR, Clinics, Rounds, Teaching etc.
- Communicate respectfully to all patients and families
- Use sensitivity when discussing medical issues
- Dress appropriately for OR, Clinics, Offices etc.
- Attend weekly teaching sessions, grand rounds
- Know staff’s weekly schedule which can change frequently
  - You can get their schedules from their office
- Do not forget about the CLERKS
  - Teach them when you can and get them involved with consults, casting, and in the OR
- Cover for one another especially if post-call
- Handover is critical (do not forget to handover your patients if you go home post-call)
- For every consult you must print off one Xray that shows the fracture and give it daily to the chief resident.
  - Name of Patient and U number (can stamp if want)
  - Name of staff on call that night/day
  - Date and time consult seen
  - Diagnosis

Fracture Clinic

If you do not have anything to do during the day or you are covering day call, please offer to help out in the fracture clinic......staff will appreciate this.

- Monday – Dr. Rajaratnam / Dr. Kwok
- Tuesday – Dr. Petrisor
- Wednesday – Dr. Sadler / Dr. Wong
- Thursday – Dr. Drew / Dr. Denkers
- Friday – Dr. Bednar / Dr. Williams
On-Call

- In house call for 1st call
- Home call for 2nd call
- If you are 2nd call backing up a PGY 1, you MUST come in to see ALL traumas (no exceptions) and consults
- Weekend
  - 8am to 8am
  - Meet in surgeon’s lounge at 8am for handover
  - Must round on all POD #1 and #2 patients as well as any patients with acute issues
- Weekday
  - 8am to 5pm – day call
  - 5pm to 8am – night call
  - On Wednesday mornings, sign out pager to staff at 6:30am so you can go to Grand Rounds
- Always call backup before staff (good for teaching purposes)
- You may have direct admits to ward or in ER
  - Make sure staff has accepted these patients (ask nurse who phones you)
  - Must see all new admits if you are called – do not just give admitting orders
- Do not accept outside calls regarding patients
  - Direct these to the staff on-call
- Give name and pager number at OR desk for them to call you for the cases
  - Unfortunately, they sometimes forget or we get bumped……..so call periodically to find out
- Good idea to call the night before (for weekend call) to find out if cases are going at 8am the next day
- Post-Call
  - You may leave at noon the following day if you were working 4 consecutive hours with 1 hour past midnight, or had to come in after midnight
  - Make sure you sign out your pager to another resident and let the ward know who will be covering for you
  - Try and help out your colleagues who are post call
**Admitting Patients**

- Write and dictate a full note
  - Include dictation number on chart
- Take stamps off all patients
  - Include date seen, diagnosis, treatment given, dictation number
- Handover details to staff and resident who is working with staff
  - If you were on-call, you should speak to the staff the next morning; do not expect the resident who is covering that particular staff’s patients to discuss the case – this is how things will get missed
- If in doubt, call your back-up and then CALL STAFF
  - Staff will not be upset at being called
  - They will be upset if they are not informed
- Bloodwork
  - CBC, lytes, BUN, Cr, INR, PTT, ± group & screen or cross & type
- EKG and CXR if warranted
- Medicine consult if warranted (not as liberal at the General as it is at other sites; use your judgment)
- Additional imaging if needed (i.e. CT, MRI)
- *** Consent
- *** Keep NPO if OR planned
- *** Abx if needed, especially pre-op prophylaxis

**ER Patients**

- Write and dictate a full note
  - Include dictation number on chart
- Take stamps off all patients
  - Include date seen, diagnosis, treatment, dictation #r
- Include detailed neurovascular examination (specific nerves for motor and sensation)
  - May end up sending some patients home and bringing them back for trauma OR time during the week (i.e. walking wounded). Discuss this with staff if needed.
Inpatients

- Don’t be late for the OR because you are rounding on inpatients
  - If you have a lot of patients, you may want to round before 7am teaching
- Must write notes in chart every day (exceptions for those who are waiting for placement or in “Rehab” – 2 to 3 times a week)
  - Patients awaiting placement are still your responsibility
- Make sure F/U appointments are made
  - Good idea to write these in post-op orders
- Make sure scripts are written
  - Good idea to write these when writing post-op orders
  - Keep in mind that meds may change during hospital stay
- F/U on x-rays, bloodwork regularly
- Post-op discharge plan may change so stay on top of this (i.e. going home, convalescence, rehab, LTC)
- Dictate discharge summaries
- Check the binder at the nurses station which has a “to do” list. Check this daily!
- You are responsible for all of your patients until 5pm unless you are post-call and have signed out your pager to another resident
Trauma

• Trauma team consists of
  o Trauma team leader (staff)
  o Trauma fellow / resident
  o Orthopaedic Surgery resident
  o General Surgery resident
  o Anesthesia resident
• Every patient seen requires a note
• If patient is seen from ‘Ortho’ and ‘Spine’ perspective, please dictate two notes
• If you know of mechanism of injuries prior to patient’s arrival, get equipment ready (Thomas splint, sheet for pelvis, plaster for splints, irrigation for open fracture)
• Note should include
  o ID
  o HPI – mechanism of injury
  o PMHX, Surgical HX, Meds, Allergies, smoker, EtOH (was patient intoxicated?)
    ▪ If known
  o ATLS protocol followed – state if done by trauma team
    ▪ ABCDE – brief under each category; do not necessarily need to write each subheading, but include if anything is significant
      • A – protecting airway, C-collar on
      • B – resp rate, O2 sats, trachea midline, breath sounds bilaterally, chest injuries
      • C – HR, BP, pelvis stable, abdo exam, external bleeding (long bones, scalp), heart sounds
      • D – GCS, pupils, log roll, spine exam, DRE, foley
      • E – environment, expose everything
  o Focused MSK exam
    ▪ X-rays ordered, pertinent findings
    ▪ Include specific detailed neurovascular examination (motor / sensory)
• Ortho’s Role
  o Check pelvis – the more normal ones you feel, the more obvious and abnormal one will be
  o Check spine and do DRE – sometimes done by trauma or general surgery
  o Check ALL limbs and joints – including hands an feet (frequently missed injuries
    ▪ Look, touch, and move everything!
• IF IN DOUBT, X-RAY IT!!!
• Feel free to help out with other areas as needed (i.e. chest tubes)
• Know all of the patients injuries prior to calling staff, especially if the patient needs to go to the OR
• If you are a PGY 1, call you back-up as soon as you get the Trauma page; they are expected to join you for every trauma!!
Booking Cases for OR

- Only the chief resident, fellows, and staff can book cases
- You may be asked to give information to the OR front desk, but the case is not booked until confirmed by one of the above

OR

- Read about your cases before you get to the OR – the more prepared you are, the more you will get to do
  - You can get the list the week before from your staff’s office or the OR
  - Trauma cases may be added, so keep your eyes and ears open for any changes
- Review chart, introduce yourself to patient, mark limb before patient is taken to OR (don’t slow down the process though!)
- Put the images up on the computer before the case
- Prepare patient (tourniquet, sandbag, etc.)
- Don’t forget activity orders for patients (i.e. NWB, WBAT, partial WB, bed rest)
  - Talk to your staff at the end of the case if you are unsure
Post-Op Orders

- Fill out front sheet
- May want to write scripts
- OR Note (procedure, surgeon, assistants, anesthetist, type of anesthetic, blood loss, complications, pertinent findings intra-op)

- Post-op Orders
  - Diet
  - Activity level (wt. bearing status)
  - Vitals
  - IV
  - Pain meds (PCA, morphine, dilaudid, Tylenol #3, Percocet)
  - Antiemetics (gravol, ondansetron)
  - Bowel protocol if appropriate
  - Drains / Foley (when to remove)
  - Regular meds (don’t forget these!)
  - Insulin sliding scale if appropriate
  - Elevating limb
  - Monitoring for compartment syndrome if appropriate
  - F/U appointment
  - OT/ PT/SW if appropriate
  - Thrombo consult if appropriate
  - Post-op imaging if needed
  - Bloodwork
  - Dressing changes prn
  - Antibiotics
  - EtOH (prophylactic treatment for DTs)
  - D/C sutures or staples POD #?
Common Medications used in Orthopaedics:

Pain medications:

- Tylenol #3 1-2 tabs PO q4h prn
  - (contains codeine!)
- Percocet 1-2 tabs PO q4h prn
- Morphine 1-5 mg IV q4h prn with 1-2mg IV q2h prn breakthrough
- Dilaudid 1-2mg IV q4h prn with 0.5mg IV q2h prn breakthrough
  - (if morphine or codeine allergy)

Antiemetic

- Gravol 25-50mg IV/PO q6h prn
- Stemetil 10mg IV q 6h prn
- Ondansetron 4mg IV q6h prn

Antibiotics

- Ancef 2grams IV on call to OR
- If open fracture…. Ancef 1gram IV q8h
- Gentamycin
  - If normal renal function: 2mg/kg IV q8h
  - If renal impairment : 2mg/kg IV q12h
    - Pharmacy to R/A – will calculate creatine clearance
- Vancomycin 1gram IV q12h
  - For penicillin allergy do not use ancef
- If worried about clostridium coverage
  - Penicillin G 4 million units IV q4h

Anticoagulation

- If on Coumadin/warfarin,
  - Hold Coumadin
  - Give vitamin K 5mg IV/PO now
  - start on heparin 5000Units SC BID, hold 12 hours prior to surgery
  - consult Thrombo
  - check INR frequently and aim for < 1.3
- if an Aspirin
  - studies have shown not to make a difference so can continue only if taking 81mg daily. If taking more, hold it
- if on Plavix
  - Hold
  - Start on Heparin 5000Units SC BID, hold 12 hours prior to surgery
  - Consult Thrombo
Bowel Protocol

• Colace 100mg PO BID prn
• Senokot 2 tabs PO qhs prn
• Lactulose 30mls PO BID prn
• Fleet enema PR BID prn

Staff Contact List

Dr. Dale Williams - Trauma & Arthroplasty
Office ................................................................. 44165
Cell ................................................................... 905-518-6221
Email ............................................................ arner@hhsc.ca

Dr. Drew Bednar
Spine
Office ................................................................. 905-577-0639
Cell ................................................................... 905-512-8960
Pager ............................................................... 905-974-1223

Dr. Mohit Bhandari
Trauma & Research
Cell ................................................................. 905-541-6057
Pager ............................................................... 905-524-6982

Dr. Brian Drew
Spine
Office ................................................................. 44636
Cell: ................................................................. 905-741-9818
Pager ............................................................... 905-546-9100
Email ............................................................ bridget@hhsc.ca

Dr. Desmond Kwok
Trauma & Spine
Cell ................................................................. 905-923-0006

Dr. Brad Petrisor - Program Director
Trauma & Foot & Ankle
Office ................................................................. 44648
Cell ................................................................. 905-515-7881
Email ............................................................ cadmank@hhsc.ca
Dr. Kris Rajaratnam  
Trauma, Upper Extremity & Arthroplasty  
Office ................................................................. 905-526-8430  
Pager .............................................................................. 7026

Dr. John Sadler  
Trauma, Spine & Arthroplasty  
Office ................................................................. 905-522-5594  
Cell ............................................................................ 905-572-0061  
Email .................................................. shericordeiro@hotmail.com

Dr. Ivan Wong  
Trauma & Sports  
Office ................................................................. 905-527-8935  
Cell ............................................................................ 905-320-6426  
Email .............................................................. mmolnar@mcmaster.ca

Dr. Matthew Denkers  
Trauma & Sports  
Office ............................................................................ 44158  
Cell ............................................................................ 289-921-6601  
Email .............................................................. pottruffk@hhsc.ca

Common Extensions

Paging ................................................................. 46311  
Admitting .......................................................... 46233  
ER .............................................................................. 46251  
ER – Obs 1 ............................................................ 46972  
ER – Obs 2 ............................................................ 46971  
ER – Trauma ........................................................ 46251  
ER – Chart Room ............................................... 48935  
Lab – Path ............................................................. 46530  
Lab – Core ............................................................. 46173  
Lab – Heme ............................................................ 46175  
Lab – Micro ............................................................ 46175

Diagnostic Imaging

Booking ................................................................. 46256  
U/S and CT Booking .................................................. 46900  
U/S ............................................................................. 46939  
ER X-ray ................................................................. 46244
Verbal Report ........................................................................................................ 46906
Nuclear Medicine .................................................................................................. 46256
MRI ........................................................................................................................ 46061
OR........................................................................................................................... 46061
Front Desk .............................................................................................................. 46277
Rosalynn (booking) ................................................................................................. 48000
Surgeon’s Lounge .................................................................................................. 46341
Wards....................................................................................................................... 46341
BTU .......................................................................................................................... 46350
ICU East .................................................................................................................. 46330
ICU West .................................................................................................................. 46300
CCU .......................................................................................................................... 46400
ICCU ......................................................................................................................... 46410
6 West ...................................................................................................................... 46661
6 South ..................................................................................................................... 46600

Resources

**Trauma:**
Rockwood and Green: Fractures, Master Technique: Fractures, Brinker

**UE:**
OKU Shoulder and Elbow, Core Knowledge Hand/Elbow/Shoulder

**Spine:**
OKU Spine, Core Knowledge Spine

**Foot and Ankle:**
Surgery of the Foot and Ankle, Core Knowledge Foot and Ankle

**Review articles:**
Instructional Course Lectures, JAAOS, AAOS Comprehensive Review
Hamilton General Hospital

Orientation

DUTIES

- All post-op day 1 and 2 patients must be rounded on and need a daily progress note
- Patients should be seen on the day they are discharged home
  - They need:
    1. Prescription for pain medication and a stool softener if needed
    2. Follow-up appointment ordered
    3. A dictated discharge note
    4. Face sheet completed
- During 8-5 you are responsible for any issues pertaining to your patients – if you are in the operating room and there is an emergency, the resident covering day call can take care of it.
- After POD #3 or #4, patients should be seen at least twice a week and more often if you or the nurses have any concerns.
- If you have patients that need to be rounded on but you are scheduled to be in the OR, you are responsible for coming in as early as necessary to complete your rounds before 7am so that you can be in the OR promptly at 8am.

ER WARD CONSULTATIONS

- All new consults must have a complete history and physical examination. This must be:
  1. Written in the chart – date, time patient seen, staff for whom you have seen the patient documented in chart, your name, signature and page number
  2. Dictated – document the dictation number at the end of your written consultation note
- After you finish your consultation you MUST discuss the case with the attending staff or a senior resident
- When you see a consult keep a copy of their Emergency Room record or face sheet with the date and time of the consultation, dictation number, diagnosis and plan written on it and give it to the staff
- If surgery is planned for any patient you do a consult on, they require:
  1. **Pre-op blood work:** CBC, electrolytes, Bun, Cr, NR, PTT, group and screen
  2. EKG- for patients over 50 or with a history of heart problems
  3. CXR- For smokers or patients over 50
  4. Consent form – will be done by resident (ortho) or staff
  5. Medicine Consult:
    - Call Dr. Achong’s office to ask for a pre-op consult. The number is (905)-528-0430
    - Any hip fracture or patient with medical comorbidities should be seen by him pre-op
  6. Pre-op IV antibiotics ordered
    - Ancef 1 g IV on call to OR

If Penicillin allergic
7. Anesthesia consult – any patient with medical comorbidities or any in whom you think there may be an issue relating to anesthesia (ex: sleep apnea, aortic stenosis, severe obesity)
8. Thrombo consult- For all patients who are non-weight bearing on a lower extremity or on bed rest
9. Call admitting/bed booking – If you admit a patient from the ER you must notify bed booking at extension 33183
10. OR must be booked – will be done by ortho resident or staff

Miscellaneous
- All patients who have a cast or splint applied in ER must have post-splinting x-rays ordered
- Patients with a hip fracture should be started on Heparin 5000 units subcutaneous BID on admission
  - Have thrombo reassess this
- If you order an investigation you must follow up on it OR ensure the resident following the patient is aware it has been ordered
- If you see a ward patient while on call you are expected to write a note in the chart and inform the resident following the patient the next day

Common Ward Issues:
1. Low hemoglobin – In general young healthy patients can tolerate Hb in 60’s -70’s
   a. Elderly patients (>70 years), those with a cardiac history or those who are symptomatic (Tachycardic, dizziness, shortness of breath on exertion, fatigue) should be transfused if Hb < 80
   b. In general order: 1 unit PRBC over 2 (or 3) hours with Lasix 10 mg IV x 1 dose after PRBC
2. Low Blood Pressure – If patient asymptomatic with no cardiac history can observe or give NS 500 or 1000mL bolus x 1 over 1 hour
   • If elderly give NS 500 mL bolus x 1
   • If still low BP repeat bolus x 1
   • If still low BP or it patient symptomatic rule out cardiac or respiratory (PE) as needed, check CBC and transfuse as needed
3. Low urine output – Very similar to low BP unless patient has history of kidney disease or diabetes check urea/creatinine in addition to giving fluids
4. High drain output
   • Generally has nurses take suction off drain for 4 hours then reinflate suction
   • If any concerns do a CBC

If you have any questions or don’t know how to handle a problem – call your senior resident or staff!

SUGGESTED MINIMUM EXPECTED PERFORMANCE REQUIREMENTS – GENERAL SITE ORTHOPEDIC ROTATION
Getting the Most From Your Hamilton General Experience:

Practice at this site focuses strongly on trauma, upper extremity, sport medicine and adult spine. Everybody should have done some relevant basic reading before coming to this rotation. YOU WILL NOT BE ABLE TO LEARN IT ALL FROM SIMPLY FOLLOWING SOMEBODY’S PRACTICE FOR A FEW MONTHS!

At the OR, find out what’s being done BEFORE the elective list is starting and know something about the cases. Out offices can tell you what we have booked. Be prepared to discuss approaches, case management, treatment options, etc. The same applies for trauma room bookings. The better prepared you are the more you’ll learn and, eventually the more you’ll cut.

The OR is a great place to learn. Often you may not be able to do much when the cases are more complex, but don’t just chitchat- grill us, it’s the perfect place to make sure you know what’s going on. The more knowledge you demonstrate to we Attendings, the more operating you’ll be doing.

Review the Trauma and spine Goals and Objectives from the wiki website at www.wiki.mcmastersurgery.com, and talk to your staff person at the beginning of the rotation about any specific expectations your or he might have. Also, tell us early when you’ll be away.

Academic Rounds

Wednesday half days start at 7 (often 7:30 in the summer) at MUMC. Site-based, as for teaching, I think Mondays Bednar does spine, every Tuesday there will be a lecture from staff, usually OTA stuff, Thursdays is our weekly case review where PGY-4s and PGY-5s are on the spot reviewing all trauma cases done from the week before. Friday’s are when the chiefs bring cases and the PGY1-3s are put on the spot.

Bring some fracture cases on Friday. The best are cases you’ll pick up from clinic that might have been treated some months ago, so they can be presented with some follow-up. Be prepared to discuss injury classification and surgical approach a bit. DON’T depend on Attendings to provide cases, YOU should pick out what’s interesting – good outcome or not!

Ensuring Coverage and Day to Day Organization

Residents should meet once a week, early, to review the weekly schedule and make sure there’s coverage for absences, etc. You should be able to resolve your own conflicts. Problems that the Chief Resident can’t resolve can be brought to Dr. Drew.

There should be a daily morning “sign over” meeting (6 West, 7AM) between the resident leaving and the person coming on. Discuss acute problems, OVERNIGHT OR’S THAT SHOULD BE ROUNDED ON FOR SURE and who’s admitted/booked for the OR/needing workup or reassessment.
A Word About Tibial Shaft Fractures

Every tibial shaft fracture should have CSM checks in the postop orders and be rounded on the morning after OR, for compartment syndrome check. Make a note in the chart about it. When you operate on a case, you should see and chart on that patient the next morning no matter what.

Managing the WARD

A discharge summary is required for every case stay 24hr or more. When discharging cases, help your Attending by dictating the discharge summary AND filling out comorbidity “ticketbox” form.

Ward patients should be rounded on every day you’re in the hospital (Wednesday’s and weekend too!), and a contact note generated into the chart. Monday, Tuesday and Thursday, when there are no morning teaching rounds, do it BEFORE the OR or office day starts. On teaching days that take you into the working day, discuss options with your Attending. Getting this done before the office days starts is best, and it can be done between cases at the OR; Wednesdays, zoom around the ward as soon as you’re back on the site.

That contact note should start with the label “POD#whatever” or PI(njury)D if there’s no OR in the case. It should contain something relevant—is the blood OK, X-rays done and looked at, is the patients mobilizing, and what’s the discharge plan?

Whenever you see or treat the patient for a problem (CHF, anemia, UTI, whatever) you should also write a contact note THAT SPECIFIES THE DIAGNOSIS, ie. “postoperative anemia, needs transfusion”. This is a very important part of our documenting morbidity in the hospital.

Discharge Summaries.

This is part of the Rounds/Discharge Planning job. Do NOT blow it off...we hear the hospital’s broke, there are not beds, that good case on the urgent List can’t come in for you to operate on...YOUR DISCHARGE SUMMARY DETERMINES HOSPITAL INCOME FOR THE CASE AND MAY OPEN THAT NEXT BED WE ALL NEED DOWN THE LINE! Really-you have that power!

It works this way. For a given diagnosis, the Ministry of health (MOH) has an average length of stay (LOS) and when it is so simply coded the hospital gets XYZ days worth of funding to look after the case. When a complex fracture or spine case stays 3 days longer than average, as our big tertiary cases often do, the hospital goes unpaid for that time. Then our ward unit shows a net deficit and some Admin wants to close a bed. If the in-the-chart diagnosis of something so simple as “postoperative anemia requiring transfusion” had been added to the summary those dollars would often have been captured.

Coders in Medical Records can read and learn what went on with a patient from the chart, but as they are not legally MD’s they cannot “make a diagnosis”, only the MD signing off the chart and doing the summary can. Every small additional diagnosis or complication makes a difference. So read the admitting and OR notes, flip through the Orders and Progress Notes, THEN dictate the summary. Things like septicemia, shock, respiratory failure/MI/DVT/PE are huge. Smaller stuff needing treatment like...
electrolyte abnormalities, delirium, or anemia needing transfusion (even after elective OR) have an important effect on a case too.

**Ongoing Research at the General Site**

As a resident on service, please keep your eyes open for any potentially eligible patients for ongoing studies performed at or being randomized to at the General. Although it is the ultimate responsibility of the Attending surgeon to alert you to any potential study patients, being proactive to identify study patients will be appreciated.

**Prioritizing Your Responsibilities**

During the day the place can get busy- here’s how daily clinical responsibilities should work.

FIRST priority is somebody on-site and available to attend the ER or ward emergencies. This will generally but not always be the on-call person and should not be the clinic resident because the case volume in the clinic makes that arguably our most important learning activity. It could be somebody in the OR...BUT if *you’re* he guy make sure you’re Attending surgeon knows this and understands that you might be required to leave the OR at any time, and bring your pager into the OR with you so urgent pages are not missed.

SECOND priority is to cover the site-based OR’s unless the operating surgeon agrees to work without you BUT when the ER/wards are busy don’t double-team the OR, get somebody downstairs to help in the busy clinics whenever possible.

THIRD priority is assistance to Drs. Rajaratnam and Sadler when they rotate up to the Henderson site for anthroplasty surgery, twice a month or so for each. Bodies are always stretched thin up there and HGH will make sure the OR’s are covered (but only the OR’s; Henderson ward and aftercare will be looked after by Henderson-based resident s). There may be days when you go up there and a Henderson-based resident is available to help HGH staff in the OR – when that happens, back downtown you might come. IF you are the resident on service with these surgeons, GET THEIR HENDERSON DATES right at the start of the rotation and THE DAY BEFORE let the Chief Resident known you may be “out” for the day.

FOURTH priority is fracture clinic coverage.

FIFTH priority is attending office or outside clinics for the learning/teaching experience there. Be prepared to be called back on-site if it gets busy, and NO you don’t stay in the office/clinic when the hospital needs you.

SIXTH priority is to do some reading if it’s quite- you have a lot to learn in five years, hit the books every chance you get!

**Remember…**

Even after all the hours and learning pressure and heavy responsibilities for patients care, Orthopedics is and always should be a lot of fun. Let’s all work together to make it that way.
6 West
Coordinated Spine Unit
Resident Booklet

Hamilton General Hospital
Hamilton Health Sciences
TABLE OF CONTENTS

❖ Introduction
❖ 6 West Team Members
❖ Unit Staff Roles, Role Descriptions, When to Consult, Expectations
❖ Daily Expectations
❖ Routine Expectations
❖ Error Prone Abbreviations, Standard Med Times
❖ Documents to be Familiar With
Welcome to 6 West, a 28-bed Orthopedics/Spine tertiary care unit. We also have three beds dedicated for post op patients requiring continuous overnight oximetry. Access to the only hospital helipad, conveniently located at the hospital, enables the General to be the region’s sole provider of neuroscience care as well as the trauma center of Central West Ontario.

We want to make your orientation to 6 West a positive and rewarding experience, and have provided you with some critical information and contact numbers you will need. This package contains some written information that you may find helpful to review before working in the unit. Enjoy your reading, and do not hesitate to contact us with any questions, comments or concerns you may have!
<table>
<thead>
<tr>
<th>Orthopaedic Surgeons</th>
<th>Ext.</th>
<th>Pager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Drew</td>
<td>6 North Room 608</td>
<td>Ext. 44636</td>
</tr>
<tr>
<td>Dr. Bedner</td>
<td>M9-414 Victoria Ave North Hamilton</td>
<td>Ext.</td>
</tr>
<tr>
<td>Dr. Denkers</td>
<td>5North</td>
<td>Ext. 44165</td>
</tr>
<tr>
<td>Dr. Petrisor</td>
<td>5 North</td>
<td>Ext. 44648</td>
</tr>
<tr>
<td>Dr. Rajaratnam</td>
<td>M5-414 Victoria Ave Hamilton ON L8L 5G8</td>
<td>Ext.</td>
</tr>
<tr>
<td>Dr. Risteviski</td>
<td>5North</td>
<td>Ext. 44158</td>
</tr>
<tr>
<td>Dr. Williams</td>
<td>5 North</td>
<td>Ext. 44165</td>
</tr>
<tr>
<td>Dr. Wong</td>
<td>5 North</td>
<td>Ext.</td>
</tr>
<tr>
<td>Dr. Sadler</td>
<td>246 James St S Hamilton</td>
<td>Ext.</td>
</tr>
<tr>
<td>Dr. Kwok</td>
<td></td>
<td>Ext 46260</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neuro Surgeons</th>
<th>Pager/Ext.</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Reddy</td>
<td>644 Concession St. Hamilton L8V 1B5</td>
<td>Ext.</td>
</tr>
<tr>
<td>Dr. Kachur</td>
<td>Spine Clinic NAC East Wing Level 1</td>
<td>Ext.</td>
</tr>
<tr>
<td>Dr. Murty</td>
<td>414 Victoria Ave N. Suite M3 Hamilton L8L 5G8</td>
<td>Ext.</td>
</tr>
<tr>
<td>Dr. Gunnarsson</td>
<td>Room 4E5 MUMC</td>
<td>Ext. 75237</td>
</tr>
<tr>
<td>Dr. Klurfan</td>
<td>McMaster Clinic Room 724</td>
<td>Ext. 44698</td>
</tr>
<tr>
<td>Dr. Devilliers</td>
<td>#204-304 Victoria St Hamilton</td>
<td>Ext.</td>
</tr>
<tr>
<td>Dr. Wells</td>
<td>McMaster Clinic 7th Floor Rm 730</td>
<td></td>
</tr>
<tr>
<td>Team Member</td>
<td>Pager/Ext.</td>
<td>Hours</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------</td>
<td>----------------</td>
</tr>
<tr>
<td>NT Program Director</td>
<td>Patti Leonard</td>
<td>Ext. 46830</td>
</tr>
<tr>
<td>Clinical Manager</td>
<td>Anne Marie VanSickle</td>
<td>Ext. 44062</td>
</tr>
<tr>
<td>Charge Nurse</td>
<td>Anna Meczozzi Julie Hoyle</td>
<td>Ext. 46661</td>
</tr>
<tr>
<td>Business Clerk</td>
<td>Lise Baylis Monique Ceelen Colleen Medeiros</td>
<td>Ext. 46650</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Care Nurse Practitioner</td>
<td>Sera Nicosia</td>
<td>Ext. 46773 Pg. 4039</td>
</tr>
<tr>
<td>Clinical Educator</td>
<td>Debra Sadowsky</td>
<td>Ext. 44333 Pg. 4309</td>
</tr>
<tr>
<td>Physiotherapists</td>
<td>Jennifer Duley Allison Ethier</td>
<td>Ext. 46650</td>
</tr>
<tr>
<td>PT/OT Assistant</td>
<td>Christine Koshiba-Bush</td>
<td>Ext. 46650</td>
</tr>
<tr>
<td>Occupational Therapist</td>
<td>Barb Murray Erin Gaiger</td>
<td>Ext. 46650</td>
</tr>
<tr>
<td>Speech &amp; Language Pathologist</td>
<td>Elizabeth Timleck</td>
<td>Ext. 40029 Pg. 7125</td>
</tr>
<tr>
<td>Dietician</td>
<td>Carrie Johnston</td>
<td>Ext. 46229 Pg. 1298</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>Judi Lewis</td>
<td>Ext. 46003 Pg. 1998</td>
</tr>
<tr>
<td>Social Worker</td>
<td>Traci Leighton</td>
<td>Ext. 44372 Pg. 7080</td>
</tr>
<tr>
<td></td>
<td>Jason Sweet</td>
<td>Ext. 46431 Pg. 4305</td>
</tr>
<tr>
<td>Payroll/Scheduling</td>
<td>Colleen Medeiros</td>
<td>Ext. 44940</td>
</tr>
</tbody>
</table>
D  STAFF ROLES, WHEN TO CONSULT, EXPECTATIONS D

CHARGE NURSE (RN)
Works together with the team to facilitate discharge planning, bed management and patient flow through the unit. Serves as the connection between the physicians and the nurses.

REGISTERED NURSES (RN)
RN’s are accountable for autonomous & complete nursing care of patients on the ward and overnight continuous oximetry bed. They are accountable for the delegation of nursing care activities & working in collaboration with RPN’s, subsequently providing support as required.

REGISTERED PRACTICAL NURSE (RPN)
RPN's are accountable for autonomous total nursing care of stable and predictable patients on the ward as long as they possess the knowledge, skill and judgment to safely care for their assigned patients. They are accountable for working in collaboration with RN’s.

ACUTE CARE NURSE PRACTITIONER (ACNP)
The Acute Care Nurse Practitioner is involved in the daily management of care of the spinal cord injured patient population. The ACNP is involved in the development of unique patient care plans and follows the patient while in acute care, simultaneously preparing patient for discharge or transfer. The ACNP works in collaboration with the health care team in providing patient and family support.

PHARMACIST (RPh)
The pharmacist reviews medication orders and assesses for drug interactions, assists with medication reconciliation, and monitors lab results as it pertains to drug therapy. The pharmacist will assess drug orders for appropriateness and will make suggestions as necessary. The pharmacist will help with drug information for the health care team yet will provided patient counseling with respect to specific drug therapy as well.

PHYSIOTHERAPIST (PT)
The Physiotherapist works in collaboration with the health care team to facilitate discharge planning as well as coordinate with community resources. They assist with the progression of mobility, transfers, and ambulation. They also aid in the management of respiratory complications in the spinal cord patient population. PT require a physician’s order to become involved in patient care.

EXPECTATIONS
Appropriate referrals
- When mobility & ambulation has been compromised and requires assessment
- Patients with comorbidities, long surgical times, or respiratory impairments that potentially would affect timely discharge
• Specific mobility orders are required in order to facilitate the PT to perform their role appropriately & adequately
• Consider referral appropriateness on patient admission

NOTE: “Discharge home when ok with OT/PT” is not an acceptable order.

OCCUPATIONAL THERAPIST (OT)
The Occupational Therapist works with the team to facilitate discharge planning by assessing for equipment needs, patient cognition and functional status. They assist in the progression of mobility, activities of daily living, and provide education regarding patient equipment (collars, braces, etc.). **OT require a physician’s order to become involved in patient care.**

EXPECTATIONS
**Appropriate referrals**
• Patients who have injuries extensive enough to impact timely discharge
• Patients who are elderly or not who have undergone extensive surgery
• Patients who are de-conditioned
• There are concerns regarding a safe discharge plan
• Consider referral appropriateness on patient admission
• Any patient that will require assessment for equipment

NOTE: “Discharge home when ok with OT/PT” is not an acceptable order

SOCIAL WORK (SW)
Social work aids patient’s and their family to address the impact of change to their health, ability and independence. SW supports the patient and family come to terms with the impact of critical news and helps facilitate the process in planning for the future. They are also a benefit in acting as a resource in emotionally changed situations. Early involvement of SW will help build an appropriate plan for discharge/transfer in a timely manner. **SW does NOT require a physician’s order to become involved in patient care.**

REGISTERED DIETICIAN (RD)
The Registered Dietician will assess the nutritional status and needs of patients by evaluating pertinent anthropometric, biochemical, dietary, pharmaceutical, physical and psychosocial data. The RD subsequently develops therapeutic nutrition care plans to meet the individualized needs of the patient by utilization of appropriate foods &/or special nutrition products. **RD does NOT require a physician’s order to become involved in patient care.**

SPINAL CORD INJURED (SCI) PILOTS
The Pilot/Navigator connects with a spinal cord injured patient as early as possible after admission to Hamilton Health Sciences. Pilots aid in developing solutions based on individual patient need, assist with advocacy, provide information and resources while working closely with the patient, health care team and community partners. The Pilot remains in constant contact with the patient and family as they journey through the continuum of care and transition back to the community.

ACUTE PAIN SERVICE (APS)
An anesthesiologist heads the Acute Pain Service. APS coverage occurs 24hrs/day, 7days/week. The role of APS is to assist with acute pain management upon formal request
by the admitting physician (or delegate). An Acute Care Nurse Practitioner (ACNP) works in partnership with the APS anesthesiologist to:
assess the patient’s analgesic requirements daily
organize and communicate a pain management plan
evaluate the patient’s response to the plan daily
Analgesic orders from the MRP are held while APS is involved, for patient safety. APS remains involved approximately 24-72hrs until the patient has adequate pain control and/or has successfully transitioned to oral analgesics. Discharge prescriptions for analgesics are not provided by APS.

EXPECTATIONS
Appropriate Referrals
- Consider referral to service when all efforts have been exhausted to control and manage acute pain.
- Recognize that once APS has formally signed off, pain management becomes the responsibility of the MRP.
Admissions

Elective
Same Day Home (SDH)
Same Day Overnight (SDO)
Same Day Admission (SDA)

Urgent
Charge Nurse will place patient on our urgent list. When bed becomes available we will contact sending facility. They are direct admits to 6 West.

Emergent
Priority ones requires immediate surgical intervention
Priority two
Priority three's discharged home to wait for operating room time

Assessment Bay
Patient can be brought to assessment bay with nurse accompaniment from sending facility. This provides an opportunity for surgeon to assess, if no surgical intervention is required then patient will return to sending facility. Charge nurse must be notified if requesting use of assessment bay.

Discharges
Home
Home with CCAC services
Home to wait on rehab, convalescence care, CCC, LTC
Repatriation - patients will be repatriated to their local community hospital
Without discharges there is no admissions because there is no beds, this means surgeries are cancelled

**DAILY EXPECTATIONS**

- Communication three times during the day:
  - In the Morning before OR (call or visit the floor)
    - Bullet rounds occur at 0800 (weekdays)
    - Check the communication board for issues
  - In between OR cases (call or visit)
    - Review patients with charge nurse (for issues)
    - Check the communication board for patient issues
  - In the afternoon prior to finishing your shift (after the OR)
    - Review patients with charge nurse (for issues)
    - Check the communication board for patient issues

**Labs and Diagnostics**

- Follow-up on ordered blood work and reassess the need for continuing blood work as necessary
- Follow-up on diagnostic tests and document plan of care

**Discharge Planning**

- Ensure consultations with other physicians and health services are clearly documented
- Ensure estimated date of discharge and discharge plan is on the chart
- Ensure co-morbidity form is completed and signed on chart
- Discharge time is at 0900 hours – ensure prescriptions, follow-ups, requisitions and discharge order are on the patient’s chart

**ROUTINE EXPECTATIONS**

- Fill out diagnostic requisitions (CT, MRI, U/S, etc.)
- Make sure to flag (tab on the spine of the chart) your orders (urgent orders should be verbally communicated to the bedside nurse or charge nurse)
- Sequencing & placement for new orders in chart → placed in the back of the chart orders section not the front
- Ensure that suggested orders from other disciplines are reviewed and co-signed (nutrition, physio, OT etc.)
- Verbal orders can only be accepted legally during an emergency situation
- Phone orders can only be accepted legally when the ordering physician is not available (i.e.: in the OR) or onsite
- **NOTE**: all verbal & phone orders must be cosigned when the ordering physician becomes available to do so
- Hold parameters are an expectation for all antihypertensives ordered
• All pre-op preparation i.e.: NPO, meds held, IV maintenance, blood work (such as group & screen) are not routine practice and do require an order
• Uphold the 4 moments of hand hygiene and mandatory isolation precautions
• Uphold HHS Code of Conduct

**ERROR PRONE ABBREVIATIONS**

Below is a chart of acronyms and abbreviations that have been proven to be error-prone. Familiarize yourself with these corrections and if an improper abbreviation is used in a doctor’s order, it is your responsibility to ensure that the order is rewritten correctly.

| **List of Error-Prone Acronyms and Abbreviations** |
|---------------------------------|---------------------------------|
| **ABBREVIATIONS**              | **CORRECTION**                  |
| *(Do not use)*                 | *(To be used)*                  |
| U                              | Unit                            |
| sc/sq                          | subcut or subcutaneous          |
| cc                             | ml or mL                        |
| µg                             | microgram or mcg                |
| MS                             | Morphine or morphine sulphate   |
| MgSO4                          | Magnesium sulphate              |
| Trailing zeros                 | 10 mg **NOT** 10.0 mg           |
| Leading zeros                  | 0.1 mg **NOT** .1 mg            |
| q.d./o.d.                      | Write *daily* out in full       |
| >                              | Write out *greater than* in full|
| <                              | Write out *less than* in full   |
| @                              | Write out *at* in full          |
| O.S., O.D., O.U.               | Write out *left eye, right eye or both eyes* in full |
| A.S., A.D., A.U.               | Write out *left ear, right ear or both ears* in full |
| Abbreviated drug names         | Write all drug names out in full |
|                                | Exceptions: Humulin R, KCl, ASA, Cipro |
|                                | Note: drug trade names are accepted |

**Approved by HHSC policy on April 13, 2005**
# DHHSC Standard Medication Administration Times

<table>
<thead>
<tr>
<th>Hamilton Health Sciences Standardization of Medication Administration</th>
<th>Standard Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dosing Schedule</strong></td>
<td></td>
</tr>
<tr>
<td>Once Daily</td>
<td>0900</td>
</tr>
<tr>
<td>BID</td>
<td>0900/2100</td>
</tr>
<tr>
<td>TID</td>
<td>0900/1400/2100</td>
</tr>
<tr>
<td>QID</td>
<td>0900/1200/1600/2100</td>
</tr>
<tr>
<td>Q2H</td>
<td>0200/0400/0600/0800 etc.</td>
</tr>
<tr>
<td>Q3H</td>
<td>0300/0600/0900/1200 etc.</td>
</tr>
<tr>
<td>Q4H</td>
<td>0400/0800/1200/1600/2000/2400</td>
</tr>
<tr>
<td>Q6H</td>
<td>0600/1200/1800/2400</td>
</tr>
<tr>
<td>Q8H</td>
<td>0900/1700/0100</td>
</tr>
<tr>
<td>Q12H</td>
<td>0900/2100</td>
</tr>
<tr>
<td>HS</td>
<td>2200</td>
</tr>
<tr>
<td>AC (before meals)</td>
<td>0730/1130/1630</td>
</tr>
<tr>
<td>CC (with meals)</td>
<td>0800/1200/1700</td>
</tr>
<tr>
<td>PC (after meals)</td>
<td>1000/1400/1800</td>
</tr>
<tr>
<td>Warfarin</td>
<td>1800</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Automatic Stop Dates</th>
<th>Automatically Stopped in (will require reordering)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral &amp; Topical Antimicrobials</td>
<td>7 days</td>
</tr>
<tr>
<td>Injectable Antimicrobials</td>
<td>3 days</td>
</tr>
<tr>
<td>Narcotics</td>
<td>5 days</td>
</tr>
<tr>
<td>Anticoagulants</td>
<td>7 days</td>
</tr>
</tbody>
</table>

*Note: Acute Care ➔ automatic stop date (for all other medication) is 30 days*
Comorbidity Tool is used to communicate to Classification Specialists in Health Records Abstraction the relevant comorbidities and complications that arise during hospitalization that should be considered for bed funding purposes. It is a way to ensure the appropriate coding will represent the appropriate funding for beds.

The MRP or their designate (i.e.: resident) is responsible for ensuring the completion of & singing of the Comorbidity Tool prior to patient discharge.

This policy has been approved by Neurosciences & Trauma Director

*Note: If the appropriate funding is not secured for beds then bed closures will occur. This directly affects the number of OR’s that your staff physician can perform annually.
6 West Post-Op Admission Orders are available for use, and aids in prompting the physician re: appropriate patient population orders.
**Medical Directive Pre-Printed Orders for Adult 6West Post Operative Admission Orders**

**Review allergies. Cross out AND initial all non-applicable numbered orders. Where a choice is to be made initial the appropriate box. DO NOT process these orders unless signed by authorized staff.**

<table>
<thead>
<tr>
<th>Date: <em>(mm/dd/yyyy)</em></th>
<th>Time: <em>(hh:mm)</em></th>
<th>Most Responsible Physician:</th>
<th>Other Physicians Involved:</th>
</tr>
</thead>
</table>

### Mobility

19. **AAT** Chair within _____ hours post operatively  
20. Weight Bearing as Tolerated  
   - Partial Weight Bearing: ___ lbs  
   - Feather/Touch Weight Bearing: ___ lbs  
   - Non Weight Bearing: Extremity: ___  
21. Range of Motion: ___ passive ___ active Extremity: ___ Restrictions: ___  
22. Braces/Splints/Collars: ___ HOB ___ degrees maximum without brace/collar  
23. Other: ___

### Urinary Output

24. Urethral catheter to straight drainage. Remove indwelling urinary catheter in _____ hours post-operatively.  
25. Begin intermittent catheterization q1-2h if patient unable to void 6 hours post urethral catheter removal.

### DVT Prophylaxis

26. **Heparin** _____ units subcut q__ h  
27. **Enoxaparin** ____ mg subcut q__ h  
28. **Dalteparin** ____ units subcut q__ h  
29. Below-knee Antiembolic stockings  
30. Sequential compression devices  
31. Other: ___

### Wound Care

32. Change dressing in _____ days with  
33. Discontinue:_drain___ OR when drainage less than 30 mL/12 hours  
34. Discontinue staples/sutures on Post Op Day #  
35. Other: ___

Filled in by:  
Authorizing Signature if required:  
Orders Transcribed By:  
Transcription Checked By:  
Checked for Untranscribed Orders By:  

---

**Signature, Designation & Printed Name**  
Initials

**Signature, Designation & Printed Name**  
Initials

**Signature, Designation & Printed Name**  
Initials

**Signature, Designation & Printed Name**  
Initials

---

**Distribution:** Original - Health Records Copy - Pharmacy  
Physician Orders - Physician Orders Pre-Printed  
Page 2 of 3
Review allergies. Cross out AND initial all non-applicable numbered orders. Where a choice is to be made initial the appropriate box.

DO NOT process these orders unless signed by authorized staff.

<table>
<thead>
<tr>
<th>Data: (yyyy/mm/dd)</th>
<th>Time: (hh:mm)</th>
<th>Most Responsible Physician</th>
<th>Other Physicians Involved</th>
</tr>
</thead>
</table>

- Social Work
- Physiotherapy
- Occupational Therapy
- Dietitian
- Palliative Care
- Thrombembolism
- Rehabilitation
- Spinal Cord ACNP
- Speech Language Pathology
- Other

### Medications

35. Cefazolin IV q 6 _h_ x _h_ then discontinue (if patient not allergic to penicillin)
36. Dimenhydrinate 25 - 50 mg PO/IV IM q _h_ pm
37. Morphine _mg_ IM/IV SC q _h_ pm
38. Acetaminophen 325 mg with Codeine 30 mg (Tylenol #3) _tabs_ PO q _h_ pm
39. Acetaminophen 325 mg _tabs_ PO q _h_ pm (Acetaminophen not to exceed 4 gm in 24 hours)
40. Acetaminophen 325 mg with Codeine 5 mg (Percocet) _tabs_ PO q _h_ pm
41. Lorazepam _mg_ sublingual PO q _h_ pm
42. Decadron Sodium 100 mg PO/enteral tube twice daily (once taking regular diet/enteral feeds)
43. Milk of Magnesia 30 ml PO/enteral tube prn
44. Bisacodyl 10 mg suppository per rectum daily prn
45. Phosphatid emesis prn

Other: (Specify preoperative medications to be resumed)

---

Filled in by ____________________________

Authorizing Signature if required

Signature, Designation & Printed Name ____________________________

Initial ____________________________

Orders Transcribed By: ____________________________

Signature, Designation & Printed Name ____________________________

(yyy/mm/dd) (hh:mm)

Transcription Checked By: ____________________________

Signature, Designation & Printed Name ____________________________

(yyy/mm/dd) (hh:mm)

Checked for Untranscribed Orders By: ____________________________

Signature, Designation & Printed Name ____________________________

(yyy/mm/dd) (hh:mm)

---

Distribution: Original - Health Records Copy - Pharmacy
Physician Orders - Physician Orders Pre-Printed

Page 3 of 3
Physician Ordered Scope of Treatment (POST) is an order set and policy that replaces the DNR policy & Advanced Directives. HHSC no longer recognizes DNR as an order. The form is to be completed by the most appropriate physician when an end of life discussion is warranted or arises.
**Opioid Analgesic Equivalences & Reference Tables** for patients requiring manipulation of narcotic analgesia for pain control. Any questions regarding table, please contact APS.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Equivalent Dose (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agonists</strong></td>
<td></td>
</tr>
<tr>
<td>Codeine</td>
<td>Parenteral(^a) 120</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>0.1-0.2 N/A-</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Meperidine</td>
<td>75</td>
</tr>
<tr>
<td>Methadone</td>
<td>N/A(^b)</td>
</tr>
<tr>
<td>Morphine</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxycodone</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Oral doses are single dose studies using immediate-release dosage forms. For chronic dosing of some agents, namely morphine, hydromorphone, or oxycodone, the oral to PO ratio decreases with chronic dosing possibly due to accumulation of active metabolites. **These approximate analgesic equivalences should be used only as a guide for estimating equivalent doses when switching from one opioid to another.** Additional references & patient response should be consulted to verify appropriate dosing of individual agents.

\(^a\) Parenteral route includes intravenous, intramuscular and subcutaneous route, but does not include intraspinal route.

\(^b\) Methadone equivalency is highly variable – this ratio from Micromedex as suggested equivalency ratio in patients on chronic oral methadone.

### Dose Conversion Guidelines for Fentanyl Transdermal Patches

<table>
<thead>
<tr>
<th>Current Analgesic Total Daily dose (mg)</th>
<th>Current Analgesic Total Daily dose (mg)</th>
<th>Current Analgesic Total Daily dose (mg)</th>
<th>Current Analgesic Total Daily dose (mg)</th>
<th>Current Analgesic Total Daily dose (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine – oral 60-134</td>
<td>135-179</td>
<td>180-224</td>
<td>225-269</td>
<td>270-314</td>
</tr>
<tr>
<td>Morphine IM/IV 20-44</td>
<td>45-60</td>
<td>61-75</td>
<td>76-90</td>
<td>91-104</td>
</tr>
<tr>
<td>Codeine – oral 150-447</td>
<td>448-597</td>
<td>598-747</td>
<td>748-897</td>
<td></td>
</tr>
<tr>
<td>Hydromorphone – IV 4-8.4</td>
<td>8.5-11.4</td>
<td>11.5-14.4</td>
<td>14.5-16.5</td>
<td>16.6-19.5</td>
</tr>
<tr>
<td>Fentanyl Patch – apply q72 hours 25 mcg</td>
<td>37 mcg</td>
<td>50 mcg</td>
<td>62 mcg</td>
<td>75 mcg</td>
</tr>
</tbody>
</table>

References:
2. Health Canada Endorsed Important Safety Information on Fentanyl Transdermal Systems, Jan 2, 2009

Prepared by: S. Jackson, RPh, Drug Information (modified from original R. Chan 2008)
Reviewed by: K. Antoni, RN,
Approved by:
April 2009
Intrathecal Morphine is sometimes administered intraoperatively. Please consider the information sheet below when ordering vital signs post op.

**Intrathecal Morphine**

*Developed at the request of the Acute Pain Service by HHS Drug Information Pharmacist December 22, 2009*

**Effects of morphine in the body**

- Morphine acts on the **central nervous system** (CNS), to produce pain relief. It may also cause side effects including cough suppression, respiratory depression, changes in mood, EEG changes, nausea & vomiting, and orthostatic hypotension due to its actions in the CNS.[1]
- Morphine also acts on the **gastrointestinal & urinary tracts** to cause constipation and urinary retention.[1]
  - When morphine is administered intrathecally (IT), it has direct access to the CNS.
  - When morphine is administered IV, IM, oral, rectal and subcut routes, it enters into the bloodstream, and must be absorbed into the CNS in order to produce pain relief.

**Benefits of IT morphine in patients undergoing major surgery**

- IT morphine may be given interoperatively to decrease post-op pain intensity and opioid requirements.
- A dose of IT morphine has been shown to decrease pain intensity at rest by about 2 cm on the 10 cm visual analogue scale up to 4 hours post-op, and by 1 cm up to 24 hours after major surgery. Additionally, patients who received a dose of IT morphine received significantly less IV morphine for rescue analgesia..[2]

**Onset of pain relief**

- **IT morphine does not produce immediate pain relief** – approximate onset of action is **15-60 min**[1,3,4]
- IV morphine onset of action is approximately 20 min
- IM morphine onset of action is approximately 30-60 min
- Oral and subcut morphine onset of action is approximately 60 minutes[1]

**Duration of action**

- Morphine administered by the IT route has a **prolonged** duration of action (12 – 24 hours) compared to the IV, IM, subcut and oral routes of administration (4 hours).[5]
- Morphine is cleared by the liver and kidneys. IT morphine is slow to get out of the CNS and into the bloodstream, where the liver and kidneys can clear it – this is why it has a prolonged duration of action compared to the other routes of morphine administration.[6]

**Risks associated with IT morphine use**

- IT morphine may produce any of the side effects listed above.
• In studies of patients undergoing major surgery, **pruritus was significantly more common** and **urinary retention was slightly more common** in patients who received IT morphine compared to patients who did not. The frequency of **sedation, nausea and vomiting were no different** whether or not the patient received IT morphine.[2]
• Since IT morphine remains in the CNS for an extended duration of time, there is a potential for **delayed and longer-lasting side effects** compared to other routes of administration.[5]
• One adverse effect of particular concern is **respiratory depression**:  
  ➢ Respiratory depression may occur with doses as low as **0.2 – 0.3 mg** of IT Morphine.[2]  
  ➢ Researchers noted that patients who received IT morphine during surgery plus IV morphine for breakthrough pain post-op experienced a higher rate of respiratory depression (1.2 – 6.7%) compared to patients who did not receive the IT morphine.[2]  
  ➢ The severity of respiratory depression caused by a dose of IT morphine appears to be at least as great as that produced by an equivalent dose of IV morphine.[7]  
  ➢ The peak effect of respiratory depression may occur up to **7 hours** after a dose of IT morphine (compared to 3 hours after an equivalent dose of IV morphine).[7,8]  
  ➢ The duration of respiratory depression is long-lasting - **up to 20 hours** after IT morphine administration).[8]

**Dosing of IT morphine:**  
• Very small doses of morphine are used when administered IT (0.2 – 1 mg daily for example) compared to other routes of morphine administration.[1]  
• Doses of > 0.3 mg IT morphine increase the risk of respiratory depression [10]

**Monitoring for respiratory depression**  
• Given the increased risk of respiratory depression following IT morphine administration and that this risk may be delayed and long-lasting, it would be prudent to **monitor respiratory rates, oximetry and sedation scores q 2 hours for 24 hours post-operatively.**  
• Factors that may predispose patients to respiratory depression include advanced age, concomitant use of parenteral opioids and other CNS depressants.[2,9]  
• A survey of IT opioid usage in the United Kingdom revealed that 54.5% of patients went to a ward post-operatively, whereas 26% went to other units (including monitored beds).[9]
References

This resource manual was developed in consult with staff from 6 West. (May 30, 2010). This booklet is an ongoing project intended for the use on 6 West Coordinated Spine Unit only.
For a good day in Ortho please follow these pointers:

- Sign-in on the Room 6 Square on the Big White Board at the OR Front Desk. Should someone be looking for you the desk will know where you are. Check the board between cases - non-urgent messages will be left there.

- The FIRST case of the day must be in the room by 0750. To help nursing meet this time frame please check to see if the patient needs to be marked as to which side/site is to be operated on. Marking with your initials, NOT an X, within the operative area as per hospital policy.

- We perform a SURGICAL PAUSE or TIME OUT before skin incision or injection of local, as per HHS Policy.
- Please know 2 PATIENT IDENTIFIERS - the NAME of the Patient, DOB.
- The Procedure being performed - the site and side (if pertinent). Antibiotics given. Any other important patient information – ie. ALLERGIES

BEFORE EACH CASE

Pull up films on PACS and locate the necessary films or CDs.

Review the history and physical (Surgeons like to quiz you during surgery).

Assist in patient positioning, urinary catheterization and shave preps as necessary.

AFTER EACH CASE

- Once the wound is closed – ensure all necessary instruments are returned to the SCRUB NURSE or placed on the SCRUB TABLE so they do not get LOST.

- Once the drapes are removed and placed in the garbage and the patient has been prepared for transfer, bring the bed or stretcher into the OR and assist with PATIENT transfer.

- Help ANESTHESIA and NURSING transfer the patient to PACU or ICU.

- Ensure post-op orders are complete.

- After transfer is complete and before you go to the ward or lounge, please check with patient reception to see if the next patient requires a side to be marked or H&P and consent completed. Please do not wait to be paged for this.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Trauma Team Leader Mobilization Criteria</td>
<td>4</td>
</tr>
<tr>
<td>Responsibilities of the Trauma Resident</td>
<td>5</td>
</tr>
<tr>
<td>Trauma Documentation</td>
<td>7</td>
</tr>
<tr>
<td>Trauma Team Members</td>
<td>8</td>
</tr>
<tr>
<td>Managing Trauma Care</td>
<td>9</td>
</tr>
<tr>
<td>Evaluation</td>
<td>11</td>
</tr>
<tr>
<td>Important Contact Number</td>
<td>12</td>
</tr>
</tbody>
</table>
Welcome to the Regional Trauma Program at Hamilton Health Sciences, Hamilton General site. Hamilton General Hospital is the Lead Trauma Hospital (LTH) for adult trauma covering LHIN 3, 4 and the western portion of LHIN 6. We are one of nine LTH caring for adult patients in the Province of Ontario. The Hamilton General Hospital has the third largest population of adult trauma patients in Ontario and has received full accreditation as a tertiary care trauma centre from the Trauma Association of Canada (TAC).

It is our intention to provide you with a meaningful trauma rotation that will allow you to become a well-rounded physician capable of dealing safely and effectively with a broad range of patient problems. We will provide you with research and educational opportunities and involve you in prevention and outreach programs.

We look forward to an exciting and mutually beneficial experience. Again, welcome and good luck!

The Trauma Program is governed by the Trauma Executive Committee, which has representation from multiple disciplines and medical subspecialties. The committee functions as the advisory group for the Trauma Program in relation to service, research and education and education issues.

The Trauma Program infrastructure consists of:

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Director</td>
<td>Dr. Frank Baillie</td>
<td>44237</td>
</tr>
<tr>
<td>Trauma Coordinator</td>
<td>Barbara Klassen</td>
<td>44349</td>
</tr>
<tr>
<td>Trauma Program Secretary</td>
<td>Rena Rice</td>
<td>44237</td>
</tr>
<tr>
<td>Trauma Research Analyst</td>
<td>Stephanie Stazyk</td>
<td>44239</td>
</tr>
<tr>
<td>Trauma Research Analyst</td>
<td>Cathy Masales</td>
<td>44431</td>
</tr>
<tr>
<td>Trauma Research Analyst</td>
<td>Angela Coates</td>
<td>44239</td>
</tr>
<tr>
<td>Clinical Nurse Specialist</td>
<td>Pam Foster</td>
<td>44889</td>
</tr>
<tr>
<td>Trauma Research Nurse</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All of these staff can be reached on 6 NORTH through Rena: Ext 44237 and/or paging. If you require assistance or have questions, please do not hesitate to ask.
All trauma patients 16 years of age and older are referred to the Trauma Team Leader (TTL), either directly from the Emergency Department or from outlying facilities (through CritiCall). The Trauma Team Leader will mobilize the Trauma Team based on the following criteria.

1. **SYSTEMS CRITERIA**

   Patients with obvious major injuries in two or more systems, each requiring a specialist and in-patient care (i.e., both injuries require admission under two different specialties).

   Example: Head injury (GCS < 10) and fractured pelvis.

2. **ANATOMICAL CRITERIA**

   - Spinal cord injury with paraplegia or quadriplegia
   - Severe penetrating injury to the head, neck, trunk, groin or perineum
   - Amputation above the wrist or ankle
   - Burns, second or third degree, involving 20% or more of the body surface or involving the face or genitalia
   - Flail chest
   - Potential for airway compromise
   - Major orthopedic injury

3. **PHYSIOLOGICAL CRITERIA**

   Glasgow Coma Scale equal to or less than 10 attributed to trauma **OR** any two of:
   - Significant decrease in level of consciousness
   - Pulse < 50 or > 120
   - BP < 80 or absent radial pulse
   - RR < 10 or > 24

4. **MECHANISM OF INJURY**

   Ejection from vehicle
   - Death in same passenger compartment
   - Falls >20 ft
   - Motor vehicle rollover
   - High speed MVC >70 km/hr
   - Significant impact with cyclist or pedestrian
   - Motorcycle/ATV/moped crash >30 km/hr or separation of rider and vehicle

---

**Note**
All pregnant trauma patients regardless of the gestational age are referred to the Hamilton General Hospital.
Your specific responsibility in the trauma suite will depend on your level of training and comfort during acute resuscitations. All resuscitations follow the ATLS approach, but the various staff trauma team leaders (TTL) offer slightly different approaches. Early in your rotation you should observe different practitioners’ approaches to the trauma patient. The goal by the end of the rotation will be to act as trauma team leader (TTL) and coordinate the resuscitation of the trauma victim, while under the supervision of the staff TTL or trauma fellow.

In addition to the responsibilities of resuscitating the acute trauma patient, you will continue to provide ongoing care to trauma patients while admitted to the hospital. In conjunction with the Trauma Team Attending (TTA), the Trauma Fellows and the Nurse Clinician, you will participate in the organization and coordination of multidisciplinary care.

**Daily Expectations**

Morning hand over is at 9:00 in the trauma fellow’s room on 6N. (The on-call resident/fellow from the previous shift must prepare a list of all trauma patients for all team members, including new admissions or consults. All patients will be discussed in detail during handover).

Monday through Friday between 09:00 and 17:00 hours you are to be present with the Trauma Team Leader in the trauma suite, participating as a member of the trauma team.

Round on all patients assigned to you and participate in their multidisciplinary plan of care. Most trauma patients are admitted to ICU East or South, 6S SDU, 6S, BTU, or 6W.

It is important to communicate with Pam, Clinical Nurse Specialist, as she will assist with the care and discharge planning for all patients.

Liaise with all consulting services and allied health staff as necessary.

Attend and participate in trauma academic rounds.

Work on your research initiatives (Fellows are expected to publish two papers per year).
Weekend Hand Over

Weekend hand over will be in the trauma fellows' room on 6N, at 09:00 unless otherwise arranged between the two parties involved.

You will be expected to round on all trauma patients. It is prudent to begin with the step down patients, (they frequently require the most attention), followed by regular ward patients, leaving the ICU patients until last. Notes should be written on all SDU and ward patients. ICU patients do not require a note on weekends unless there is an important aspect of their care that occurs (extubation, insertion of chest tube, new pneumonia, etc). All tertiary surveys must be completed and documented.

Trauma Clinic

The Trauma Clinic is held every Friday at 1100 hours in the Outpatient Department. Appointments are made for all patients who require follow-up from the trauma service post discharge. Follow-up care is especially important for patients that will not be seen by another specialist for a prolonged period of time. Follow-up is typically 1-2 weeks with the trauma team. The clinic is to be attended by the trauma fellows and residents.

MRP Change

Once the patient has a single system injury or issue keeping them in hospital, the trauma service can sign the patient over to the appropriate service. This must only be done by the trauma fellow or the trauma attending to the receiving STAFF physician. Once the receiving physician accepts MRP status, the fellow must write the order in the patients chart as well as document the change in the progress notes.

Documentation

Resuscitation documentation is done using the ER trauma flow sheet and is completed by nursing staff. Please remember to sign the flow sheet if you are involved in the resuscitation. The trauma resident/fellow responsible for the resuscitation must complete the Trauma Assessment form (available in the trauma suite), document the primary and secondary surveys on the physician progress notes and dictate an
admission note (copies to TTL and family physician). The admission note is dictated under the **Trauma Attending** as he/she is the admitting physician. The presence of an Assessment form, written and dictated notes does not diminish the need for **direct physician-to-physician** communication when transferring care to another physician or service, for example, ICU or the OR. Admission orders are electronic and are to be completed by the resident/fellow for 6S and 6S SDU. ICU admission orders are also electronic and will be completed by ICU residents/fellows.

**Trauma Package**

You will find trauma packages available to you in the ER trauma suite, (red file folder). They will contain:

1: Physician progress notes.
2: Trauma Assessment forms.
3: Diagnostic Imaging forms (for x-ray and CT)
4: Consent form.

**Inpatient Documentation**

Documentation on all trauma inpatients consists of a daily note. The following issues should be reviewed on a daily basis:

1: Mechanism of injury
2: List of injuries
3: Vital signs and GCS
4: Review of lab and radiology reports and frequency of performing
5: IV fluids
6: I & O
7: DVT prophylaxis
8: Pain management
9: Medication orders
10: Diet orders
11: Activity/weight bearing orders
12: Presence of chest tubes, trachs, drains, central lines, catheters etc
13: Wound care
14: Plan of care
Formal discharge summaries including a **dictated note** must be completed on all patients who are discharged from hospital or expire while under the care of the Trauma Program. (ICU residents will dictate on trauma patients who expire in ICU). The discharge summary is to be dictated under the **Attending Physician**. If the patient has been involved in an MVC, please complete the Automobile Insurance forms as soon as possible. Please remember to document all injuries and complete all sections. Patients involved in workplace incidents must have the WSIB Form 8 completed.

### Trauma Team Members

The Trauma Team consists of the Trauma Team Leader, Trauma Fellow(s) and Resident(s), General Surgery Resident, Orthopedic Resident, Anesthesia Resident and Respiratory Technologist. **All are to respond immediately** to the Emergency Department when the Trauma Team is activated.

Management of an acute trauma in the Emergency Department Trauma Suite will be conducted and coordinated by the Trauma Team Leader. The trauma team usually is notified prior to the arrival of a trauma patient so that they are organized and prepared for the incoming patient. In the event where the trauma patient arrives prior to the trauma team and TTL, the ER physician is in charge of the patient until the TTL arrives.

Paging will be as follows for all incoming trauma patients:

- Trauma Team * 0 (patient at the doors or in ER)
- Trauma Team * 1 (patient is 5 minutes out)
- Trauma Team * 2 (patient is 6-15 minutes out)

**You must call the ER (X46251) to acknowledge all pages.**

### Trauma Consultation

You may be asked to consult on a patient who has been previously managed by another service. **ALL CONSULTS MUST BE ACCEPTED BY THE TTL.** If two or more systems are involved and admission is required, the patient must be discussed with the TTL. Once the TTL agrees, the patient needs to be admitted under the trauma attending.
Managing Trauma Care

Trauma patients are usually admitted to the ICU, Stepdown Unit or the regular surgical floors. The ICU team looks after patients in the ICU; however, the Trauma Team is expected to be aware of the daily progress and management of their patients in the ICU.

All major patient management decisions are made in cooperation with the Trauma Attending and Fellow. The Trauma Attending physician is a consultant who covers the trauma inpatients for a full week starting each Friday at 0700 hours to the following Friday at 0700 hours. The Trauma Attending is your staff support for all elements of trauma patient care for inpatients. The Trauma Attending physician will be available for formal 'on unit' daily rounds. Residents and Fellows having concerns or issues with inpatients after hours are to consult with the Trauma Attending for the week, not the Trauma Team Leader.

In addition to the Trauma Attending physician, the Chief Trauma Fellow is expected to provide leadership and direction to the residents in the care of all trauma patients. The Chief is expected to be familiar with the issues and plans of care for all patients, and to identify and discuss relevant teaching points during morning handover.

The Clinical Nurse Specialist (CNS) is Pam Foster. Pam plays a vital role organizing the care of the trauma patients from “resuscitation to rehabilitation”. She is available Monday through Friday from 0830 – 1630 hours. Pam rounds with the trauma team and is easily accessible to the Fellows, residents and multidisciplinary staff. Pam is a huge part of the discharge planning process and is involved with rehab referrals and repatriations.

Dictation

Dictation must be completed for ALL admissions, discharges and clinic visits. The dictation numbers is 5000, and then follow the instructions.

1: ADMISSION DICTATION:

Your name, title, dictation for Dr. (the trauma attending)
Names of staff physicians on call for services necessary to the management of the patient.
Patient identification and history of the event
Primary Survey (A, B, C, D &E)
AMPLE  history  
Results of chest and pelvis x-ray  
Secondary survey  
CT results  
Assessment and plan of care  
Disposition of patient summary

2: DISCHARGE SUMMARY

Your name, title and dictation for Dr. (the trauma attending)  
Patient identification  
Date of admission  
Date of discharge  
Admission diagnoses  
Discharge diagnoses  
Other diagnoses related to length of stay  
Procedures/surgeries performed  
Brief discussion of course in hospital  
Discharge medications, follow ups, and special instructions

Health Advocate

It is expected that the Fellow/resident will participate in Trauma Prevention and Outreach Programs. You may be asked in your role as Resident or Fellow to participate in the CHAT program or to travel to outlying hospitals for teaching purposes.

Education and Research

You are expected to attend your academic half-day  
Trauma Fellows are expected to publish two papers per year.

Tuesday Regional  
Trauma Rounds

These rounds are held every Tuesday at 1600 hours in the Theatre Auditorium at the Hamilton General Hospital. All specialties that contribute to the management of trauma patients participate in these presentations. Fellows are expected to find speakers and topics for presentation and inform Rena of names and dates of same. Rena will then
advertise the sessions to our staff and to our community colleagues who view our rounds via web cast.

Morbidity & Mortality rounds are held the first Tuesday of every month. You may be asked to present at these rounds. Please maintain a list of interesting cases that would benefit from being presented in this type of forum.

Trauma simulation sessions take place Tuesday afternoons from 1300-1530 in the simulation lab.

**Thursday Trauma Rounds**

These rounds take place every Thursday at 1600 in the 6N teaching room and are presented by fellows, residents or other members of the team. They are for clinical clerks and students. Residents are expected to present at least once during their rotation. There is a bank of topics that need to be covered (see list on bulletin board in the trauma fellow’s office).

Thursday afternoon from 1500-1600 is a patient presentation with the attending physician, focusing on one particular aspect of the case.

**Daily Bedside Rounds and Education**

The Fellow/Trauma Attending provides daily informal educational sessions at the bedside and/ or in the classroom.
There is a room provided for Fellows, residents, interns or students to do research, study or prepare educational sessions on 6 North.

**Evaluations**

Midway through your rotation, it would be to your benefit to meet with the Medical Director or his designate for an interim evaluation. Ongoing feedback should be informative in nature and should be requested from individual Trauma Team Leaders. Two weeks prior to the end of your rotation please give a copy of your evaluation form to the Program Secretary for completion by the Medical Director.
CONDUCT

If you are NOT On-Call turn your PAGER OFF when in the OR and ensure the Ward knows that you are in the OR. PLEASE see the attached PAGER POLICY. The OR staff are only to answer PRIORITY 1 pages for residents ON-CALL when it does not interfere with the care of our patient.

Please introduce yourself to the staff in the room if they are not familiar to you. Also write your name and glove size on the WHITE BOARD on the far back wall.

XRAY lead is very expensive. Please HANG IT UP!! Return it properly to the racks provided in the hall outside of OR 6. If your size is not there please walk around the OR and find the proper one.

The telephone in the hallway outside of OR 6 is for dictation – do not use the OR telephone for this purpose as we need it for communicating with PACU, front desk etc.

I have technique manuals for our instrumentation systems. If you look at the next day OR list and would like to review any please let me know.

Thank you in advance for your cooperation,

PAGER POLICY

3.0 Policy Statements

The hospital must have access to the physicians while they are in the Operating Room. Staff in the Operating Room will monitor pager activity when it does not interfere with the intraoperative care of the patient.

Priority #1 pages will be answered by the OR nurse, if it does not interfere with patient care during elective block time.

After hours, for the on call surgeon/team, there must be a triage decision made regarding pages, and pages returned by the team as time permits.

4.0 Procedure

4.1 The physicians and residents are responsible to:

4.1.1 Put pagers on silent/vibrate and manage all pages except Priority #1 between cases.

4.2 The nurses in the room:

4.2.1 Will respond only to priority #1 pages, if it does not interfere with patient care.

4.2.2 Will not respond to routine pages i.e. Priority #2, #3, #4. (refer to 4.1.1)

5.0 Definitions

OR suite: the room in which the actual surgery is performed.
## Staff Info

<table>
<thead>
<tr>
<th>Staff</th>
<th>Interests</th>
<th>** Dictation No.</th>
<th>Contact Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Ayeni</td>
<td>Sports</td>
<td></td>
<td>X73532</td>
</tr>
<tr>
<td>Dr. Burrow</td>
<td>Peds</td>
<td>(5) 13062</td>
<td>X73177</td>
</tr>
<tr>
<td>Dr. Dale</td>
<td>Foot and Ankle</td>
<td>(5) 13510</td>
<td></td>
</tr>
<tr>
<td>Dr. Mah</td>
<td>Sports/Peds</td>
<td>(5) 13512</td>
<td>O: (905) 575 3755 P: MUMC 8030</td>
</tr>
<tr>
<td>Dr. Missiuna</td>
<td>Peds</td>
<td>(5) 13603</td>
<td>O: (905) 527 3014 P: (905) 540 0373</td>
</tr>
<tr>
<td>Dr. Ogilvie</td>
<td>Sports</td>
<td>(5) 13511</td>
<td>O: (905) 304 5817 P: MUMC 7554</td>
</tr>
<tr>
<td>Dr. Peterson</td>
<td>Peds/Sports</td>
<td>(5) 13058</td>
<td>O: MUMC P: (905) 972 3841</td>
</tr>
</tbody>
</table>

** PLEASE USE YOUR OWN DICTATION NUMBER PROVIDED

### Weekly Schedule

*This is rough, esp the OR schedules which tends to change.*

<table>
<thead>
<tr>
<th>Day</th>
<th># Clinic</th>
<th>OR</th>
<th>Peds Clinic</th>
<th>Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Burrow in AM</td>
<td>Missiuna</td>
<td>Mah</td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>Dale/ Ogilvie</td>
<td>Burrow/Peterson</td>
<td>0700 Peds Rounds # Clinic</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>Mah</td>
<td>Variable</td>
<td>Burrow</td>
<td>0700 Grand Rounds MDCL 3020</td>
</tr>
<tr>
<td>Thursday</td>
<td>Peterson</td>
<td>Mah</td>
<td>Burrow</td>
<td>0700 Peds</td>
</tr>
</tbody>
</table>
Some Suggestions and Expectations

- get your staff’s weekly schedule from their office (wkly routine often changes)
- get weekly OR list from office or in OR so you can read before cases (approach, anatomy, techniques)
- nurses will have a list at the nurses station with TTD…check it every day
- remember we’re all on the same team so try to help each other out (ie: ER Coverage, if you get hammered post call)
- don’t forget about clerks (teach and get them involved)
- round in AM BEFORE teaching/ OR/ clinic
- acute pt’s need to be seen everyday with notes (esp POD 1,2,3 or if any post-op complications occur)
- chronic pt’s with NO ACUTE issues should be seen ~ 2X/wk with notes (use discretion)
- on weekend, round on pts POD 1, 2 and any pts are handed over (staff/resident), check with the charge nurse
- be sure to document each nerve (motor and sensory components) and vascular exam clearly especially pre-op and first post-op exam
- consults in Er: keep green sheet with dictation number written on sheet and give to staff
- always round on Tibia #s POD 1, 2 and beware of compartment syndrome

Tips for OR

- show up early
- review chart, introduce yourself to pt, mark limb
- write:
  1. Post-op orders
  2. Rx
  3. OR Note
  4. Front sheet (with comorbidities)
- prepare room (tourniquet, blankets, put of x-rays)
  
  **BUT, do this in a way so not to slow down the profess of things**

- all of these little things do not go unnoticed by staff and usually pay off in the form of more operating time and more teaching

Tips for Ortho Post-op Note

- date, time
- post-op day (POD___)
- mentation: alert, drowsy, decreased LOC
- cardioresp: C/P, SOB
- pain: controlled, increasing, stable
- **dressing:** dry, drainage, (pus, serosang)
- **mobility:**
- N/V
- Labs: esp Hgb
- X-ray

**PLAN:** D/C Home, Rehab, Convalescent Care, LTC

**Reminder for Orders**

**MRP:** don’t forget to change it when a different staff operates as opposed to the admitting staff

**Diet:** NPO, CF, DAT

**Activity:** NWB, WBAT, PWB (? Lbs)

PT/OT Consult, VSR, CSM, Elevate arm/leg, IV

**Foley** (D/C POD 2 in am usually)

**Investigations:** CBC, BUN, Cr, Lytes, CK, Trop, ECG, CXR

**Drugs:** Narcs (morphine, Demoral, T#3, Perc), NSAIDS, Ferrous Gluconate, Gravol, Tylenol, Bowel Routine (Colace, Lactulose, Fleet Enema, Ducolax Supp)

**Pt’s Drugs:**

EtOH: thiamine, multivit, folate, ativan

**ABX:** Ancef/Vanco/ Anesthesia/ Rehab

**Thrombo** (consult or prophalaxis)

Medicine/ Thrombo/ Anesthesia/ Rehab

Social Services

Diabetes slider

**X-ray** (every pt needs some hardcopy either fluoro images or post-op)

Dressing order, D/C Drain, D/C Clips

Rx written, F/U, D/C when well

**Peds Analgesia Doses**

**Tylenol (~10mg/kg)**

<table>
<thead>
<tr>
<th>WT (kg)</th>
<th>Dose (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.25-5.4</td>
<td>40</td>
</tr>
<tr>
<td>5.5-7.9</td>
<td>80</td>
</tr>
<tr>
<td>8-10.9</td>
<td>120</td>
</tr>
<tr>
<td>11-15.9</td>
<td>160</td>
</tr>
<tr>
<td>16-21.9</td>
<td>240</td>
</tr>
<tr>
<td>22-26.9</td>
<td>320</td>
</tr>
<tr>
<td>27-31.9</td>
<td>400</td>
</tr>
<tr>
<td>32-43.9</td>
<td>480</td>
</tr>
<tr>
<td>&gt;44</td>
<td>650</td>
</tr>
</tbody>
</table>

**Codeine:** 1 mg/kg

**Morphine:** 0.1 mg/kg
Common Extensions

Admitting 75100
Bed Booking 75106
Fracture Clinic 73087
47 76060
3C-N 76345
3C-S 76971
3B 76120
ICU 75693
OR 75645
ER 75020
Paging 76433

Resources

*Peds Trauma:* Rockwood and Green Volume 3 Peds
Peds: Lowell and Winter, Atlas of Ped Ortho Sx (has procedures)
*Sports:* OKU Sports, DeLee’s Sports Medicine (available on line) unfortunately both resources are only “O.K.”
*Review articles:* Instructional Course Lectures, JAAOS (**** junior residents should start at these resources at they are very readable and great summaries****)
Introduction:
This manual provides basic but important details about your orthopedic rotation at the Henderson site. Please read it and apply its content in your daily practice. Learn good habits and stick with them
Let’s start with a regular day in our orthopedic rotation:

Inpatient round:
Ortho patients are located in, F5 (mostly hip fractures), and E2 (mostly athroplasty). and some may be in C3 mostly oncology.

Please round on your inpatient every morning on weekdays. Check and address the nursing question board. Check the B/W and write an efficient note.

Note: VS, LOC, POD#, Procedure, Cardio respiratory symptoms, pain issue, wound and drain status, Foley, ambulation status, NVS of the limb, cast or splint status, D/C plan and placement.

Round on your patients before teaching at 7.

On weekend, the resident on call is to round on POD 1&2 patients and any patient of concern. Please also check the nurse’s wish list.

Every inpatient, regardless of length of stay, needs D/C summary upon discharge.

D/C summary: Date of admission and discharge, reason for admission, date and type of procedure(s), course in hospital, complications (type, intervention and outcome), patient status upon discharge, disposition and F/U plan.

When discharging a patient, please make sure all the paperwork has been completed.

Teaching activities:
Every morning we will meet in fracture clinic as follows:

Monday 7-8: weekend cases review.

Tuesday 6:45-7:45: rounds with Dr. Winemaker.

Wednesday 7-8:30: Grand Round at MUMC

Thursday 7-8: rounds with Dr. DeBeer

Friday 7-8: rounds with Dr. Wismer
OR day:

1. Find out about your cases a couple of days in advance, read patients clinical notes and check the imaging, check the last B/W, read about the procedure, approach and regional anatomy. See your patient in the holding area and mark the surgical site. You can now use the clinic connect from home and know the cases from home if you have access, if you don’t know how please let me know.

2. In the OR, consider yourself as staff. Think ahead of others and anticipate the next step: Need for Foley, patient’s positioning, padding and stabilization, need for tourniquet (or sterile one!), prep and drape (find out your staff preference in this regard), always use the eye shield. During procedure be smart and alert, look, listen and ask appropriate questions.

3. When assisting, anticipate the next step and co-ordinate your move with staff.

4. When doing the case, think of next step, ask for appropriate instrument (be familiar with the names), and adjust the retractors for your assistant. Stay focus and confident. Find out about your staff preference for type of closures, suture material, dressing and splints.

5. Help with patient transfer and protect the surgical region and drain.

6. Write OR note, post op order, script and dictate the procedure (unless staff wants to do it).

7. Some staff likes to round on the OR patients at the end of the day. Stay with them.

8. After your OR day, write the procedure down clearly as it is done and review with your staff.

9. **Automated Scrubs Dispenser: Please register for this and obtain a dispenser account.** Go to the OR front desk and ask them specially if you haven’t been there for a long time.

---

**OR Note:**

Date:
Pre-op Dx:

---

Post-op Dx:
Procedure and detail of HW:
Duration of operation:
Surgeon(s):
Assistant(s):
Anesthesiologist:
Anesthesia:
Lines/ Foley:
Complications:
EBL:
Transferred to PACU/ ICU/ SDU in stable condition.

Post-op order (ABC- DAVID):

Find out of there is a template or staff specific orders.

Post-op order/ staff name/ bed type (floor, SDU, ICU)

1. Procedure
2. Allergy
3. Code status (if applicable)
4. Diet
5. VSR/ q?hr x Duration? (or per SDU/ ICU)
6. Ambulation status and limb position
7. Limb elevation, protection (sling, immobilizer), CSM frequency and duration
8. IVF (ns or RL), rate and duration. (If K needed, give it separately).
9. B/W: CBC, lyte, BUN, Cr, INR, PTT, glucose in am x 3 days or else.
10. D/C drain (staff preference) in 36 hr or when < 30ml / 12 hr shift. (Check with staff).
11. D/C Foley in 48-72 hr, then in & out catheter q 6-8 hr prn.
12. D/C central line POD 1 if not needed.
13. D/C staples or sutures day 14.
14. Analgesic:
   a. Short acting IV narcotic (morphine 2-8 g q 3-4 hr prn), if elderly 2-4 mg. Avoid Demerol if possible especially in elderly.
   b. Short acting PO narcotic prn (codeine 15-30 mg po q 4-6 hr prn, oxycodone 5-10 mg po q 4-6 hr prn, hydromorphone (dilaudid) 1-4 mg po q 4–6 hr prn.

Attention:
The above are examples, please check the type and dosage with your staff.
Do not give two different short acting narcotics. If patient needs breakthrough dosage, use the same short acting po q 4 hr prn breakthrough.

Be very careful with narcotics! They can cause respiratory suppression and death. IT can happen!

d. NSAID: please consult your staff in advance. Generally speaking, NSAIDs should not be used after fracture fixation, arthroplasty, tendon/muscle repair and fusions.

15. Antiemetic:
a. Gravol (dimenhydrinate) 12.5-25 (elderly) to 25-75 (young) po q 4-6 hr prn.
b. Zofran (ondansetron) 1-4 mg po q 8 hr prn only for short term and if not responding to Gravol

16. Antibiotic for open surgeries (not for scope or precut pinning):
a. Ancef (cefazolin) 1 g IV q 6-8 hr x 24 hr (check with your staff).
b. If allergic to penicillin: clindamycin 300-600 mg IV q 8 hr (less expensive).
c. If Gram negative coverage needed: ciprofloxacin 400 mg IV q 12 hr or 3rd generation cephalosporin.
d. If anaerobe coverage needed: Flagyl (metronidazole) 500 mg IV/PO q 6-8 hr x 24 hr or penicillin.

Attention:
- The above are only examples, please check with your staff.
- The only effective ABx dose in reducing infection rate is the single dose prophylactic ABx ½ - 1 hr prior to skin incision. Post-op ABx in clean wound is controversial.
- In complicated situation, consult ID.

17. Anticoagulation: consult thrombo. You do not have to order it.

Dr. Smith’s order: Fragmin 2500 U SQ 6 hr post op, 5000 U SQ od x 6w.

TED stocking prn.

Generally speaking always try po first (senna, colace, lactulose), then PR (Dulcolax) then enema (fleet or soap)

19. Anxiolytic: Ativan 0.5-1 mg po qhs prn. Only when anticipate problem!

20. All pt’s meds with exact dosage and frequency. Please rewrite them in post-op order.
If on oral hypoglycemic, start them when eating well (usually POD 1-2)  
Meanwhile on insulin sliding scale with CBS qid.

If on beta blockers or CCBs: hold if SBP < 100 or HR < 60  
If on ACE or ARB hold if SBP < 100.

21. Restart patient’s ASA, plavix POD 1 or 2 depends on your staff preference.

22. Alcohol withdrawal protocol when needed:  
Thiamine 100 mg IV OD x 3 days, lorazepam 1-2 mg IV/ PO q 6 hr prn or  
Diazepam 5-1- mg IV/Po q4-6 hr prn. May add Vitamin B & C, folic acid.

23. Replace electrolytes as necessary. (k, Na, PO4, Ca, Mg)

24. Consults: PT, OT, Thrombo, SW, and GAU, palliative, if applicable.

25. D/C plan / disposition.

26. F/U, date, location and staff name.

OR note dictation:

Date of dictation/ surgery:
Your name:
Patients name and ID number:
Pre & post op Dx:
Procedure(s):
Surgeon(s)
Assistant(s)
Anesthesiologist/ anesthesia:
Complications:

EBL:
Lines/ Foley:
A brief HPI:
Procedure: pt was brought to the operating theater, spinal anesthesia, lines, Foley, transfer to OR bed, positioning, padding, tourniquet (pressure, location, size), prep, drape, time out, incision (location, shape, length), exposure, details about procedure (HWS: type, size, angle, …), Irrigation, closure deep to surface, suture material, drain, dressing, splint or cast. Patient was transferred to PACU / ICU in stable condition.

Report any incident (contamination,…) occurred before, during or after procedure (always double check with staff first).
Fracture clinic day: Ask your staff about dictation policy.

Office day:

Attending the office has an advantage of learning and discussing the topics with your staff in a more relaxing environment. Furthermore, you will see new consults where you can work on your history talking, physical exam and formulating your management. Ask your staff regarding dictation policy.

Day coverage:

Usually a junior resident, with a senior back up covers the day call. The resident is responsible for any new consult in the ER and floor. **However, staff assigned residents should handle their own inpatient’s issues.**

Do not hesitate to communicate with a senior resident when in doubt.

When admitting a patient:
1. Write the admission order.
2. Call bed booking.
3. Call anesthesia resident
4. Call medicine if applicable.
5. Call thrombo if applicable.
6. Obtain informed consent.
7. Ask about code status if applicable.

Admission Order:

There are preprinted hip fracture order sets. They are found on the computer. In short:

Call admitting/ bed booking.

1. Admit to ortho/ Dr. ?
2. Dx
3. Allergy.
4. Code Status (if applicable, mostly in elderly or severely unstable patient).
5. Diet order.
6. Vs.
7. Activity/ ambulation
8. IVF.
9. B/W, (add Ck, TPT, Ca, Mg, Po4, Alb in elderly)
10. Group and Screen (do not order C & M unless absolutely necessary).
11. ECG.
12. CXR
13. Urine analysis (UA) in elderly.
Treat asymptomatic bacteriuria in elderly patients (prevalence: 25-50% in elderly).
Symptomatic cystitis should be treated pre-op and should not undergo TJR until symptoms resolve (check with your staff).

14. X-ray
15. CT, MRI, Bone scan depends on the case.
   - Provide enough information and your clinical question to radiologist.
   - When urgent, talk to radiologist and follow on the result
   - When ordering CT ask for 2d (3D reconstruction)

16. Analgesic if applicable.
17. Antimetic if applicable.
18. ABx:
   - Prophylactic: Ancef 1-2 g IV on call to OR (clinda 600 mg IV or vanco 1-3 g IV if allergic to penicillin)
   - UTI (Septra DS I tab po q 12 hr x or Cipro 500 mg po q 12hr x 7-10 days.

19. All patient’s meds: exact dosage and frequency.

Special considerations:
   - Hold ASA, Plavix and NSAIDs prior to surgery.
   - AntiHTN should be given pre-op and resumed post-op.
   - D/C diuretics 2-3 days pre-op and correct hypokalemia
   - IDDM: a half dose of insulin on the morning of surgery should be given.
   - Oral hypoglycemics should be held on the day of surgery.
   - 5% dextrose fluids should be administered to avoid starvation ketosis.
   - Pt on long-term glucocorticoid: hydrocortisone 100 mg IV ½ hr prior to surgery, then q 8hr x 24-48 hr post op.

20. Consults:
   - Medicine
   - Anesthesia
   - Thrombo

If you are admitting an operative case, please communicate with the staff, obtain informed consent, book the case and ask the chief or staff to confirm (cases should be booked by the staff or the chiefs and check the BW as well as medicine/ anesthesia consults.

Night calls:
   - 17:00 to 08:00
   - resident on day call should handover the patient’s issues (unstable patients, pending tests) to the resident on night call at 17:00.
- Resident on night call should check the evening OR list, review the cases (B/W, imaging, consent).
- **When ordering a test, please follow on the result ASAP and manage accordingly.**
- Hand over the cases to the staff assigned resident(s) in am.
- Juniors need to communicate with staff and practice on their efficient case presentation. However when in doubt or late night, please first communicate with your senior resident. Ask your staff about his/ her preferable way of communication (page, cell, home)

**Weekend calls:**

- 08:00 to 08:00
- Round on POD 1 & 2s, on any patient of concern in the morning and address nursing concerns in am.
- Hand over the cases in person, by phone or email in am and make sure the next resident knows about all the related patients, pending B/W and imaging.

**Medical Clerks:**

2 clerks for a 2-week rotation.

1. Please educate them when time allows, and recruit them to see new consults during day and night calls.
2. Their exam is on the second Thursday of their rotation in the afternoon.
3. Calls: each medical clerk will get 2 weekday and one weekend (Sat or Sun) call arranged by them.

**Miscellaneous:**

1. When ordering a test, follow on the result.
2. Check your email every night, as this is our regular way of communication.
3. When a patient is sick, please take the situation seriously and act responsibly.
4. Any call switch should be submitted in advance to the chief residents and, after approval, to Linda Campbell at paging (campbell@hhsc.ca)
5. Please be advised that we have excellent internal medicine, thrombo, and physio teams, they are following the patients with, they will respect your decision and they will help you if you ask, but please help them too, see you pts order appropriate tests and then call them
6. We have an excellent nursing staff, please take their concerns seriously.

Site Important information:
References:

1. Trauma: On line: [www.ota.org](http://www.ota.org): there are 2 sets of lectures, one set is immediately available: the second set needs to be downloaded. Very helpful. Also incorporate them in your own lectures.
3. OKU: Arthroplasty
8. OKU 9, 2008.

**Staff Information**

<table>
<thead>
<tr>
<th>Staff</th>
<th>Pager</th>
<th>Dict #</th>
<th>Office Phone</th>
<th>Office Address</th>
<th>Office fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeBeer</td>
<td>Cell phone 905-541-4634</td>
<td>513031</td>
<td>905-527-1115</td>
<td>307-1 Young St.</td>
<td>905-528-8150</td>
</tr>
<tr>
<td>Winemaker</td>
<td>905-540-0987</td>
<td>513007</td>
<td>905-570-8884</td>
<td>708-1 Young St.</td>
<td>905-570-1675</td>
</tr>
<tr>
<td></td>
<td>Cell phone 289-339-4582</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smith</td>
<td></td>
<td>513</td>
<td>905-575-0167</td>
<td>105-565 Sanatorium Rd.</td>
<td>905-575-7643</td>
</tr>
<tr>
<td>Avram</td>
<td>Cell Phone 905-979-1005</td>
<td>513</td>
<td>x 43997</td>
<td>70 wing, ground level, R11</td>
<td>905-381-7028</td>
</tr>
<tr>
<td>Ghert</td>
<td></td>
<td>513</td>
<td>x 64902</td>
<td>JCC- section J</td>
<td>905-575-6343</td>
</tr>
</tbody>
</table>
HHS Algorithm for Urinary Tract Infections in Adult Patients

If culture obtained in absence of s/sx:
Asymptomatic bacteriuria: positive urine culture in the absence of symptoms regardless of UA results
NO treatment
Excludes pregnancy or individuals undergoing urologic procedures when bleeding is anticipated (e.g. TURP)

NO

YES

Signs and symptoms of suspected UTI (at least one):
Dysuria, frequency, urgency, suprapubic pain, and/or hematuria (usually in the absence of vaginal symptoms)
Delirium (in the absence of alternate explanation)

1) Collect midstream urine for C&S
2) Catheter? Replace and collect urine from clean catheter
3) If delirium is the only symptom: send urinalysis. If pyuria absent, UTI unlikely.

Cystitis

NO

YES

Uncomplicated*

Empiric Oral options (choose one of the following)
1) Nitrofurantoin monohydrate/macrocrystals 100mg BID (females)
2) TMP/SMX 1 DS BID or trimethoprim 100mg (option in sulphonamide allergic pts)
3) Ciprofloxacin 500mg BID (if contraindication for options 1 and 2)

Duration: 7 days
Streamline as per C&S results

Complicated†

Empiric Oral options (choose one of the following)
1) TMP/SMX 1 DS BID
2) Amoxicillin-clavulanate 875/125mg BID or 500/125mg TID
3) Ciprofloxacin 500mg BID (if contraindication for options 1 and 2)

Duration: 7 days
Streamline as per C&S results

Additional signs & symptoms (at least one)
Fever (≥38.5°C)
Flank pain
Abdominal or pelvic pain
Nausea/vomiting
Costovertebral tenderness

Pyelonephritis

Empiric IV options (choose one of the following)
1) Ceftriaxone 1gm q24h
2) Gentamicin 5-7mg/kg q24h (based on Ideal Body weight)

Oral options (Empiric use is discouraged given HHS resistance rates)
1) TMP/SMX 1 DS bid
2) Ciprofloxacin 500mg BID

Collect 2 sets of blood cultures

First line target therapy for documented sensitive organisms:
- Use nitrofurantoin whenever possible (consider alternatives in males)
- TMP/SMX if nitrofurantoin resistant or complicated UTI
-Consider fosfomycin for (suspected) ESBL producing organisms.
- Use ciprofloxacin only if no alternative agent available. Note: ~20% of urinary pathogens resistant to fluoroquinolones!

Definition for ‘complicated’ cystitis varies. Factors to consider include: age >55yo, males, symptoms >7 days, diabetes mellitus, structural abnormalities of urinary tract (stricture, renal calculi, abscess), spinal cord injury, recurrent UTI

Nitrofurantoin is contraindicated in anuria, oliguria or significant renal impairment (CrCl less than 60ml/min or clinically significant elevated serum creatinine), consider alternatives if pregnant >35 weeks

Consider alternatives in first trimester and >34 weeks

*** All antibiotics listed other than ceftriaxone need to be doses according to renal function ***
Some Suggestions and Expectations

- get your staff’s weekly schedule from their office (wkly routine often changes)
- get weekly OR list from office or in OR so you can read before cases (approach, anatomy, techniques)
- nurses will have a list at the nurses station with TTD...check it every day
- remember we’re all on the same team so try to help each other out (ie: ER Coverage, if you get hammered post call)
- don’t forget about clerks (teach and get them involved)
- round in AM BEFORE teaching/ OR/ clinic
- acute pt’s need to be seen every day with notes (esp POD 1,2,3 or if any post-op complications occur)
- chronic pt’s with NO ACUTE issues should be seen ~ 2X/wk with notes (use discretion)
- on weekend, round on pts POD 1, 2 and any pts are handed over (staff/resident), check with the charge nurse
- be sure to document each nerve (motor and sensory components) and vascular exam clearly especially pre-op and first post-op exam
- consults in ER: keep green sheet with dictation number written on sheet and give to staff
- always round on Tibia #s POD 1, 2 and beware of compartment syndrome

Tips for OR
- show up early
- review chart, introduce yourself to pt, mark limb
- write:
  1. Post-op orders
  2. Rx
  3. OR Note
  4. Front sheet (with comorbidities)
- prepare room (tourniquet, blankets, put of x-rays)
  **BUT, do this in a way so not to slow down the profec of things**
- all of these little things do not go unnoticed by staff and usually pay off in the form of more operating time and more teaching

Tips for Ortho Post-op Note
- date, time
- post-op day (POD ___)
- mentation: alert, drowsy, decreased LOC
- cardioresp: C/P, SOB
- pain: controlled, increasing, stable
- dressing: dry, drainage, (pus, serosang)
- mobility:
- N/V
- Labs: esp Hgb
- X-ray

June 2010
PLAN: D/C Home, Rehab, Convalescent Care, LTC

Reminder for Orders
MRP: don’t forget to change it when a different staff operates as opposed to the admitting staff
Diet: NPO, CF, DAT
Activity: NWB, WBAT, PWB (? Lbs)
- PT/OT Consult, VSR, CSM, Elevate arm/leg, IV
Foley (D/C POD 2 in am usually)
Investigations: CBC, BUN, Cr, Lytes, CK, Trop, ECG, CXR
Drugs: Narcs (morphine, Demoral, T#3, Perc), NSAIDS, Ferrous Gluconate, Gravol, Tylenol, Bowel
Routine (Colace, Lactulose, Fleet Enema, Ducolax Supp)
Pt’s Drugs:
EtOH: thiamine, multivit, folate, ativan
ABX: Ancef/Vanco/ Anesthesia/ Rehab
Thrombo (consult or prophalaxis)
Medicine/ Thrombo/ Anesthesia/ Rehab
Social Services
Diabetes slider
X-ray (every pt needs some hardcopy either fluoro images or post-op)
Dressing order, D/C Drain, D/C Clips
Rx written, F/U, D/C when well

Peds Analgesia Doses

Tylenol (~10mg/kg)

<table>
<thead>
<tr>
<th>WT (kg)</th>
<th>Dose (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.25-5.4</td>
<td>40</td>
</tr>
<tr>
<td>5.5-7.9</td>
<td>80</td>
</tr>
<tr>
<td>8-10.9</td>
<td>120</td>
</tr>
<tr>
<td>11-15.9</td>
<td>160</td>
</tr>
<tr>
<td>16-21.9</td>
<td>240</td>
</tr>
<tr>
<td>22-26.9</td>
<td>320</td>
</tr>
<tr>
<td>27-31.9</td>
<td>400</td>
</tr>
<tr>
<td>32-43.9</td>
<td>480</td>
</tr>
<tr>
<td>&gt;44</td>
<td>650</td>
</tr>
</tbody>
</table>

Codeine: 1 mg/kg
Morphine: 0.1 mg/kg
Common Extensions

<table>
<thead>
<tr>
<th>Service</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admitting</td>
<td>75100</td>
</tr>
<tr>
<td>Bed Booking</td>
<td>75106</td>
</tr>
<tr>
<td>Fracture Clinic</td>
<td>73087</td>
</tr>
<tr>
<td>3C-N 76345</td>
<td>3C-3 76971</td>
</tr>
<tr>
<td>3B 76120</td>
<td>ICU 75693</td>
</tr>
<tr>
<td>OR 75645</td>
<td>ER 75020</td>
</tr>
<tr>
<td>Paging 76433</td>
<td></td>
</tr>
</tbody>
</table>

Resources

**Peds Trauma:** Rockwood and Green Volume 3 Peds  
Peds: Lowell and Winter, Atlas of Ped Ortho Sx (has procedures)  
**Sports:** OKU Sports, DeLee’s Sports Medicine (available on line) unfortunately both resources are only “O.K.”  
**Review articles:** Instructional Course Lectures, JAAOS (**** junior residents should start at these resources at they are very readable and great summaries****)

---

Let the young know they will never find a more interesting, more instructive book than the patient...  
~Giorgio Baglivi
St. Joseph’s Hospital – Outline

Schedules:

- Weekly schedules will be e-mailed Sunday for assignments including day call and daily staff assignments
- This is a team based environment, so assignments to one individual staff may not be possible.
- On call schedules are final once sent out. If you wish to switch call responsibility, you must inform paging (and myself via e-mail)
- Daily schedules will be updated on the white board beside the nursing station on 7MSK
- Please be aware special days, including MAD days and other professional days (including half days), please inform your staff in advance and ensure all foreseeable clinical duties are attended to (scripts, discharge summaries, etc.)
- Trauma OR room starts each weekday usually after noon. There will be a resident assigned to the room (if available). Khaled Al-Shakman, Ortho Surgical Assist, usually helps to facilitate this room.

On call:

- Day call 8 a.m.-5 p.m. on weekdays, night call 5 p.m. -8 a.m. weekdays. Call on weekends is from 8 a.m. to 8 a.m.
- Call is home call (within 20-30 minutes of hospital)
- Home call is 1 in 3. As per PAIRO rules, if your night call is not busy, you may be expected to stay the following day to fulfill clinical duties
- Day call hangover is due via E-mail by 5 p.m. Night call handover is due within a timely manner, completed before going to sleep. Please do not send an E-mail hangover at 6 a.m. if possible. Plans for the next day need to be clearly communicated in a timely manner.
- If you are concerned about an acutely ill patient or outstanding consult and you are not the resident on call, please discuss with the night call resident in person/via phone to address your concerns.
- E-mails need to be sent to all individuals on Ortho. Please do not CC ongoing E-mails, rather do a new E-mail for each call shift. Day and night call for a particular day can be combined.
- E-mail outline: Staff on call, consults – including patients discharged home, signed off consults, ORs Pending (diagnosis, etc.), Ward Issues (with each MRP) and any outstanding issues.
- Access to a share document on GOOGLE DOCS prior to the rotation. Here all the information requiring those patients requiring surgical intervention will be attended to.
Each on call resident will be responsible for updating the document with patient information and what outstanding activities remain for clearance for OR. The MRP for the patient, their resident will then be responsible to ensure ongoing issues are completed for OR (after night call is finished)

- Each staff may have preference about gathering information for any consults seen (sticker vs. yellow ER sheet, so check with staff)
- Each consult must be dictated on within a timely manner and this number written beside the consult note
- Please contact the staff on call after your night call shift to update them (usually in morning after 8) and to touch base of any other outstanding issues.

**Teaching:**

- Teaching sessions occur each and every day, except for Wednesday (half-day – Ortho)
- We will meet at 7 a.m. each morning for teaching in the Campbell auditorium

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekend Hangover (cases)</strong></td>
<td>40 minute presentation: Ortho resident</td>
<td>No teaching</td>
<td>Potpourri Cases</td>
<td>30 minute presentation: Off service resident/Ortho</td>
</tr>
<tr>
<td><strong>No staff</strong></td>
<td>Staff of resident presenting</td>
<td>All staff</td>
<td></td>
<td>Staff prn</td>
</tr>
</tbody>
</table>

- Please be courteous to fellow residents presenting and attend to clinical duties required before coming to teaching. Please be on time.
- You are responsible for teaching medical students, clerks and visiting elective students. Please remember to include them in learning opportunities

**Ward Issues:**

- Ortho ward at St. Joes is 7MSK. There are off service patients on other wards as well, such as 7 Nephrology and 8 rehab.
- You are expected to round on your acute patients everyday with accompanying clinical note. Staff may round with you as per their schedule and may dictate otherwise about need for rounding.
- Weekends are reserved for rounding on those patients who are post-op days 1 and 2 and any other acutely ill individuals which have been hangover with concerns.
- There are preprinted orders for hip fractures in the ER
There is a charge nurse who helps to facilitate discharge as well as other multidisciplinary team members on the unit.

Dr. Achong is our hospitalist. He is a valuable resource, who sees the majority of the elective OR patients in his office. His notes from these visits are usually in the chart.

FOR ALL PREOPERATIVE CONSULTS – please contact Dr. Achong’s office 905-528-0430 (leave a message with this answering service 24/7), with the patients name, admitted condition, expected date of OR and location of the patient. He usually comes in before his office between 7-9 a.m. to see all pre-op consults.

Currently, goal for discharge for arthroplasty patients is 3-4 days post-op. There is an existing plan of care already in place for these individuals (physio, APS). Please ensure scripts are done, orders for thrombo have been signed and follow-up is clearly indicated on post-op day 2-3.

All discharge scripts are computerized. Please ask the RN or ward clerk to print these off for you to sign and place in clear sleeve on front of chart.

The day call resident is not to be left with the above duties. If there are any acute concerns for a patient, and the resident responsible for that patient is unavailable, they can assist. The day call resident is not responsible for simple reorders, scripts and other day to day ward issues. If a nurse is asking for simple reorders, it is up to your discretion, but these matters can wait, and should be directed to the responsible resident.

It is best to round and attend to clinical duties for all your patients prior to teaching, clinic or the OR.

If you are in the OR, please call in between cases to see if there is anything outstanding for your patients.

All in-patients require a discharge summary within 48 hours of discharge. If you are on call on the weekend, and wish to dictate for your peers, please stated dictation done in hangover E-mail.

The medicine teams are available to help for appropriate inpatient issues. Dr. Achong may see and assist with some patient issues. If you are concerned about a patient and there are acute issues (SOB, CP, etc.) page medicine, but keep in mind, there may be a delay in the medicine team seeing your patient. CCRT (critical care response team) is always available if you are uncertain or feel patient cannot wait.

Each staff has their own preference for post op x-rays, bloodwork and physio routines, so please inquire with your staff if you are uncertain.
POLICY

All persons carrying on activities at St. Joseph’s Healthcare Hamilton (including employees, contract workers, volunteers, physicians, students, undergraduates, post graduates, and medical trainers) shall promote a professional image by appearing well groomed and appropriately attired.

This policy is applicable seven days a week, 24 hours a day.

Individuals who fail to comply with this policy may be subject to formal disciplinary actions.

PROCEDURE

30.1 Identification

ALL STAFF MUST WEAR THEIR ST. JOSEPH’S HEALTHCARE PHOTO IDENTIFICATION BADGE SO THAT IT IS CLEARLY VISIBLE.

Staff must be readily identifiable as a member of staff at St. Joseph’s Healthcare. This includes the employee first and last name and the title of staff, i.e., Educator, Registered Nurse, Pharmacist, Unit Communication Clerk, Physiotherapist, etc., via identification badges.

30.2 All employees are to present a tidy, well groomed professional appearance. All attire shall be clean and in good repair. All clothing must cover the individual from the shoulder to the knee.

a) Tops – tops with advertising or slogans are unacceptable. A discrete logo indicating the professional designation is acceptable. Midriff tops are not to be worn. Sleeves of tops shall cover the shoulder. Revealing neck lines shall not be worn. Tops shall not be made of transparent fabric.
b) All denim of any colour (pants, skirts, dresses, jackets, tops) shall not be worn.

c) Skirts and dress shall not have revealing hem lines.

d) Pants – Cargo pants, leggings and jogging pants shall not be worn. Knee length walking shorts are acceptable.

e) Footwear— Footwear which give good support and which cover the foot shall be worn. Flip flops, thong footwear and slippers are not to be worn. Footwear shall be kept clean and in good condition. For protective footwear, refer to policy 12-OH&S entitled Protective Footwear. Sandals are not to be worn. Directors/Managers may only permit sandals to be worn when an employee is not at risk of a foot injury.

f) Hair – must be neat, clean, and worn away from the face. Long hair is to be pinned back when required for aseptic or safety reasons.

g) Hats - shall be removed in all clinical settings when in the building if a hat is not part of the assigned uniform.

h) Beards and Moustaches – needs to be neatly trimmed.

i) Jewellery – shall be minimal. For staff safety, hoop or dangling earrings shall not be worn. Small hoops that release when pulled can be worn.

j) Rings - Multiple rings on several fingers may not be worn. This is to maintain asepsis and safety for patients and staff to reduce the risk of infection.

k) Nails - For patient safety and asepsis, nails shall be neatly groomed and clean.

l) Personal Hygiene – Employees need to maintain good personal hygiene.

30.3 Patient/Client Services

This policy applies to all staff who work with patients/clients or staff who work part or all of their shift in any clinical area.

The information identified in Article 30.1 and 30.2 is also applicable to staff in patient/client services.
Appearance in Uniform

Uniforms must be clean, in good condition, properly fitted, and well pressed. The fabric shall not be transparent. Two piece uniforms shall be the same colour or co-ordinating colours.

a) Dress, pant suits, culottes/dress shorts only, in white or co-ordinated colours. Green scrubs are restricted to designated areas.

b) A neatly tailored sweater or co-ordinated jacket may be worn with the uniform.

c) Socks/Stockings – socks or stockings must be worn and shall be white, skin tone or matching the colour of the pants.

d) The wearing of uniforms, caps, etc. which are not supplied by St. Joseph’s Healthcare is subject to the approval of the employee’s Director/Manager.

30.4 Scrub Colour Designations – Employees in the following areas/classifications are required to wear the following designated scrub colour:

- Porters – blue scrubs
- USSP – maroon scrubs
- Contract Housekeepers – forest green scrubs
- Food Services – white scrubs
- Emergency Room – caribbean blue scrubs with SJHH logo

Greens – In the following areas, “greens” are the accepted dress:

a) Endoscopy
ii) Hemodialysis Centre
iii) Labour and Delivery
iv) Operating Room
v) Neonatal Intensive Care
vi) P.A.R.
vii) SPD
viii) Respiratory Therapy
ix) Any other area in accordance with the collective agreement.

Greens must not be worn outside St. Joseph’s Healthcare or to and from work.

Lab Coats – should not be worn outside of the department/unit. Only under certain circumstances will lab coats be worn outside the department/unit with the Manager’s/Director’s approval.

30.5 Exceptions
a) Any isolation or patient gown (blue/yellow) shall only be used for protection due to direct patient contact. It is not to worn for warmth and not to be worn out of the patient room or outside the building.

b) Each program/discipline may need to develop specific guidelines regarding dress code that facilitates their particular work with patients, i.e., Recreation. These guidelines shall be approved by Human Resources Advisory Committee.

c) When SJHH identifies a specific day to encourage participation or awareness for a cause (i.e., United Way), the Marketing and Community Relations Department will communicate the event to staff in advance and the appropriate dress code for this cause.
The heights by great men reached and kept were not attained by sudden flight, but they while their companions slept, were toiling upward in the night.

Henry Wadsworth Longfellow
US Poet (1807 - 1882)
☐ I have received a copy of the Resident/Faculty Manual

☐ I have read and agreed with the Faculty Commitment to Residents

☐ I have read and agreed with the MacORTHO Mission and Vision Statement

Date: ___________________________

Print Name: ___________________________

Signature: ___________________________