

McMaster Otolaryngology-Head & Neck Surgery

ACADEMIC PROGRAM

At McMaster University, the Postgraduate Medical Education Office supports the implementation of Competency-based Medical Education (CBME). The CBME office has structured committees that support the work, development, and implementation of CBME across the many residency programs at McMaster University. You are encouraged to visit their website where many resources are available. <https://cbmepg.mcmaster.ca/>

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Competence by Design:

The Otolaryngology-Head & Neck Surgery residency training is a five-year program. The Royal College of Physicians and Surgeons has been transitioning to a new competency-based approach called Competence by Design (CBD). Otolaryngology-Head & Neck Surgery was the first surgical program to launch the new CBD curriculum on July 1st, 2017. During their first two years of training, residents also participate in the Surgical Foundations program. The Surgical Foundations program provides a solid background in the principles of surgery. Since July 1st, 2018, all surgical residents have enrolled in the Surgical Foundations program CBD curriculum. Residency training is organized into four developmental stages, with outcomes for teaching and learning at each stage. Competence by Design consists of achieving Entrustable Professional Activities (EPAs) distributed within the four stages of training. Each stage has some EPAs that need achievement.

Stages are as follow (one block consists of 4 weeks duration):

Transition to Discipline + SF Boot camp: 2 Blocks of rotation

Foundations of Discipline: 18 Blocks of rotation

Core of Discipline: 39 Blocks of rotation

Transition to Practice: 6 Blocks of rotation

Key terms you need to know:

Milestones:

A milestone is the expected ability of a resident at a stage of expertise. CanMEDS milestones illustrate the predicted progression of competence from novice to mastery associated with each enabling CanMEDS competency.

Entrustable Professional Activities:

An Entrustable Professional Activity (EPA) is a key task of discipline (i.e., specialty or subspecialty) that a resident can be trusted to perform without direct supervision in a given health care context, once sufficient competence has been demonstrated. EPAs integrate multiple CanMEDS milestones from various CanMEDS Roles.

Further resources:

Rationale for CBD <http://www.royalcollege.ca/rcsite/cbd/rationale-why-cbd-e>

CBD Resource Directory <http://www.royalcollege.ca/rcsite/cbd/cbd-tools-resources-e?N=10000023+10000026+4294967181+4294967257>

Academic Curriculum

The academic curriculum includes your mandatory clinical and elective rotations, academic half-day activities, courses, research, and other educational activities. It is compulsory to attend 75% of the educational activities. Please refer to the attendance policy in the chapter for policies on the website.

Academic Half-Day Activities (September to June):

- Grand Rounds Wednesdays 7:30-8:30 am
- Comprehensive Otolaryngologic Curriculum Learning Through Interactive Approach (COCLIA) Wednesdays 2-4 pm, senior residents only
- Summer COCLIA Wednesdays 3-5 pm all residents
- Teaching by faculty, expert Wednesdays 4-6 pm, all residents

Other Educational Activities:

- Journal Club: 5 sessions per year 6-8pm
- Temporal Bone lab bi-monthly Mondays 5:30-7:30 pm
- Institute for Healthcare Improvement online courses (new)
- Resident retreat in the fall
- Annual Resident research day in the fall
- Cadaver Lab Dissection sessions (sporadic)
- McMaster Postgraduate Medical Education e-modules
- McMaster Multidisciplinary Academic Half Day (MAD)
- Surgical Outcomes Research Centre workshop in February (optional)
- Annual MacChiefs Day for PGY4 in the spring
- Faculty of Health Sciences Program for Faculty Development (various workshops promoting teaching and learning for faculty and residents)
- Indigenous Health curriculum—visit Brantford Woodland Cultural Centre and other seminars

Courses funded by the program:

- Otolaryngology Boot Camp for PGY1 in September
- Canadian Resident Sinus course for PGY3 in July
- Airway Management and Simulation course for PGY4
- McMaster Anterior Skull Base course for PGY4 (lectures for all residents)
- Halifax Otolaryngology-Head & Neck Surgery review course for PGY5

Simulation:

Residents have exposure to simulation through courses funded by the program such as the boot camp for first-year residents and the airway course for fourth-year residents. McMaster has its simulation lab, and residents may participate in simulated scenarios mostly related to otolaryngology trauma and airway management.

Research:

Since McMaster is the home of Evidence-Based Medicine, there is a multitude of research opportunities afforded to residents. We support our residents doing research in a variety of ways. Dr. Michael Gupta is the research director for residents and is available for guidance and support. The faculty also work closely with residents.

The Royal College CBD curriculum requires that you complete a scholarly project as part of your training as indicated in the core stage: EPA 3.4 Developing and executing a research project.

The McMaster program requires that each resident works on three projects during their residency training and that one of the projects is a quality assurance/improvement study. Residents typically present their work at our annual resident research day that takes place in the fall. We also support residents presenting their research projects at national or international conferences. The program provides funds that help cover conference expenses. It is not mandatory to be successful with publishing a paper, but it is highly encouraged to submit your work for publication.

Grand Rounds Guidelines:

- Coordinator: Dr. Jonathan MacLean
- Dates: Wednesday morning 7:30-8:30 September to June
- Location and topic: posted on the website calendar of events
- Attendance for all residents

The coordinator is responsible for preparing the Grand Rounds calendar for the academic year. Various themes are presented such as the medical expert subspecialties of Otolaryngology-Head & Neck Surgery, head and neck multidisciplinary rounds, interesting cases from junior and senior residents, morbidity and mortality, patient safety/quality improvement, pathology, radiology, snapshot, trauma, topics from the intrinsic 2015 CanMEDS competencies, and guest speakers. The Department of Surgery organizes three Chair Rounds per year.

All residents must present at Grand Rounds. The coordinator assigns themes, dates, and a faculty acting as supervisor for residents presenting. Residents choose a topic about the subject, and their supervisor must approve it. Residents must contact their supervisor no later than 4 weeks before the assigned date, and the presentation must be reviewed with the supervisor no later than 2 weeks before presenting. During the presentation, residents must outline the 2015 CanMEDS roles that are pertinent to the topic. Residents must also notify the program administrator of their title no later than 1 week before the event.

Residents unable to present on the assigned date, are responsible for switching with another resident. This switch cannot be made less than 4 weeks of the presentation unless the resident accepting the switch is fine with the switch. The resident making the switch must notify their supervisor, the Grand Rounds coordinator, and the residency program administrator.

The goals and objectives of Grand Rounds are for learning and improving basic and clinical knowledge, fulfill knowledge gaps, integrate evidence into decision-making in their practice. Residents/other presenters will specifically discuss the following:

- Chose topic relevant to clinical practice
- Provide objectives
- Identify relevant CanMEDS competencies
- Present good quality material that answers the objectives
- Use Evidence-based principals and material of current literature
- Conclusion and recommendation

Evaluation of Grand Rounds: formative form on MedSIS

COCLIA Guidelines:

- Coordinator(s): Chief resident(s)
- Dates: Wednesdays 3-5 pm (July-August) and 2-4 pm (September-June)
- Location: posted on the website calendar of events
- Attendance for July-August all residents, Sept.-June senior residents only

The *Comprehensive Otolaryngologic Curriculum Learning through Interactive Approach (COCLIA)* originates from the American Academy of Otolaryngology-Head & Neck Surgery resident education resources. The *COCLIA* is a teaching tool designed to help residents systematically acquire Otolaryngology-Head & Neck Surgery knowledge over a three-year period. Based on adult learning principles, the program provides a discussion platform for basic anatomy, physiology, diagnosis, management and decision making that includes over 100 major otolaryngology topics.

Active learner-centered teaching is the basis of this program and encourages residents to take responsibility for their learning. Research has shown that placing the emphasis on the learning

process improves the understanding and long term retention of educational content; traditional lectures, no matter how brilliant, will not be remembered.

<https://www.entnet.org/content/coclia>

The Chief resident will make the *COCLIA* objectives available at least 1 week prior to the event to give adequate time for residents to prepare. Residents must research the answers, review and summarize the latest pertinent literature. All residents are to complete PowerPoint presentations. If a resident is unable to attend a session, they are to complete their objectives and speak to a peer to present their slides. Presentations are to be mailed to the McMasterENT@gmail.com email address by the end of the COCLIA session.

Topics for presentation can be found on the *COCLIA* website <<https://www.coclia.org/>>. These are suggested objectives and may be modified by the chief resident. Generally, one topic should be covered per session. Presentations from all subjects should be covered over the course of the year, evenly representing all domains in Otolaryngology-Head & Neck Surgery.

The *COCLIA* is mandatory for all residents during the summer months, and is mandatory for PGY3, 4, 5 during the academic year.

Teaching Guidelines:

- Coordinator(s): PGY4 resident(s) and Dr. Doron Sommer
- Dates: Wednesdays 4-6 pm (September-June)
- Location: posted on the website calendar of events
- Attendance for all residents

The coordinators are responsible for preparing the teaching session calendar for the academic year. The coordinators chose topics from the list of EPAs, the Royal College of Otolaryngology-Head & Neck Surgery competencies and the home program overall goals, objectives and competencies. The program uses a series of topics covering a three years rotating calendar.

The program administrator is responsible for confirming teachers and updating the website calendar of events. Teachers unable to present on the assigned date, are responsible for notifying the program administrator as soon as possible for rescheduling. The format for the teaching session is didactic on a PowerPoint presentation, but any other form that will comply with learning is acceptable. Teachers should outline the 2015 CanMEDS roles that are pertinent to the topic in their presentation. We encourage all teachers to make it as interactive as possible by asking questions, may use case based-learning, promote evidence based-medicine, review guidelines and recent literature as much as possible.

Residents must arrive prepared by reading over the topic presented.

The goals and objectives of the teaching sessions are for learning and improving basic and clinical knowledge, fulfill knowledge gaps, prompt self-directed learning and reading and integrate evidence into decision-making for practice.

Teachers should specifically discuss the following:

- Provide objectives
- Identify relevant CanMEDS competencies
- Present good quality material that answers the objectives
- Use Evidence-based principals and material of current literature
- Conclusion and consolidation

Evaluation of Teaching session: formative form on MedSIS

Journal Club Guidelines:

- Coordinator: Dr. Michael Gupta
- Dates: 5 times per year, 6-8 pm
- Location and topics: posted on the website calendar of events
- Articles posted on the website Journal Club chapter
- Attendance for all residents

The coordinator is responsible for preparing the Journal Club calendar for the academic year. A list of themes is predetermined for the year, and articles are selected from current and well-known journals. The themes are the following: medical expert subspecialties of Otolaryngology-Head & Neck Surgery, basic sciences, research, Canadian indigenous health, global health, quality assessment, and radiology. Each resident will present one article. The most senior resident among the assigned presenters will help with the selection of the articles. The coordinator must approve the selection. The format for the article discussion is on a PowerPoint presentation. Residents must outline the 2015 CanMEDS roles that are pertinent to the article.

The most senior resident must distribute the selected articles to the program administrator and the residents presenting at least 2 weeks before the date of the Journal Club. It will allow enough time for the preparation and review of the articles.

The goals and objectives of the Journal Club are learning and applying critical appraisal by evaluating the integrity, reliability, and applicability of health-related literature. Residents will specifically discuss the following:

- Clinical question
- Methods and design
- Patient selection criteria
- Intervention/exposure
- Assessment of results, strengths and limitation of the study

- Relevance to your clinical work
- Will the appraisal change your practice

Evaluation of Journal Club: formative form on MedSIS

Temporal Bone Lab Dissection Guidelines:

- Coordinator: Dr. Jason Archibald
- Dates: bi-weekly on Mondays, 5:30-7:30 pm
- Location: McMaster anatomy lab, 1st floor
- Attendance all senior residents

The coordinator is responsible for preparing the Temporal Bone lab calendar for the academic year and providing orientation to residents at the beginning of the academic year. Each session has a supervisor assigned. Supervisors that are unable to attend must notify the program administrator as soon as possible for rescheduling. Every resident must set up their station, clean up at the end, and keep their bones stored appropriately. Residents use the House Ear Institute temporal bone surgical dissection manual as a guide. The manual presents step-by-step laboratory exercises, using illustrations and descriptions. The supervisor provides guidance, direction on technical skills, anatomical landmarks identification, and answers any raised questions.

Residents should keep a journal of their dissections; reflect on what they learned and what they still need to work on their bones.

The goals and objectives of the Temporal Bone lab dissection are learning the anatomy of middle ear space, mastoid and inner ear, technical skills and practice drilling, identifying surgical landmarks and dissection of the temporal bone. Residents need to practice the following procedures:

- Cortical mastoidectomy
- Canal wall down mastoidectomy
- Facial nerve recess approach
- Facial nerve decompression
- Epitympanum approach
- Removal of ossicular chain bones
- Ossiculoplasty (porp, torp)
- Stapedectomy/stapedotomy
- Postauricular labyrinthectomy
- Translabyrinthine and middle cranial fossa approaches to internal auditory canal
- Approach to cochlear implants
- Endolymphatic sac dissection

Assessment Overview:

The most significant shift with CBD is assessment. In CBD, residents achieve competency when they show how and demonstrate the ability to do a task independently. Residents will need to work at completing EPAs from each stage of training. Our program values the hybrid model where other forms of assessments are layered on top of the EPA evaluations. All completed assessment forms must be kept in the resident ePortfolio. The competence committee will review each resident progression at least twice per year, and when a resident is deemed for promotion to the next stage of training. The competence committee will review all forms of assessments to make a recommendation regarding a resident's progress to the residency program committee. It is the residency program committee that makes the final decision about progression and promotion. For further details on assessment forms, promotion, and related policies, please refer to chapter 4 on the website.

EPAs version 1: residents starting July 2017 and 2018 use Royal College Mainport ePortfolio until the program transfers the MedSIS

EPAs version 2: residents starting July 2019 use MedSIS ePortfolio

For all subsequent EPAs version, residents will use MedSIS ePortfolio

Outline of the work-based assessment tools and others:

- Patient observation-Form 1
- Procedural competencies-Form 2
- Multi-source feedback-Form 3
- Narrative observation-Form 4
- ITER: use for rotations that do not have EPAs
- Review of dictation letters (consultation and OR report)
- Presentation evaluation form
- Teaching evaluation form
- Journal club evaluation form
- In-house exams (written and oral)
- National in-Training Examination-yearly
- Chart self-audit review for PGY5