

McMaster Otolaryngology-Head and Neck surgery
Goals and Objectives
Otolaryngology-Head & Neck Surgery Rotation
Hamilton Health Sciences
CanMEDS2015

Normal Cohort-Fifth Year Resident

Overview

During the fifth year of residency training the resident will spend 6 blocks at Hamilton Health Sciences. The resident will gain experience in dealing with patients in the clinic, on the wards, intensive care units, operating room and in the emergency department. The Otolaryngology-Head and Neck Surgery service at McMaster University Medical Centre (MUMC) involves a significant amount of pediatric practice, in addition to an adult outpatient practice. The Hamilton General Hospital (HGH) involves an adult practice only. The Juravinski Hospital involves also an adult practice and our team provides the on call consultation and urgent service at this site.

All residents must review their learning objectives with the Clinical Teaching Unit Director at the beginning and at the end of the rotation to facilitate meeting the objectives.

Clinical Teaching Unit Director: Dr. D. Sommer

Staff Surgeons:

Dr. E. Jeney- General Otolaryngology
Dr. B. Korman- Pediatric Otolaryngology
Dr. J. MacLean- Pediatric Otolaryngology
Dr. D. Reid- General Otolaryngology
Dr. D. Sommer- Rhinology, Anterior Skull base Surgery

You will be expected to make hospital rounds with your team in the mornings before starting in the days' activities of the service and at the end of the day. You are expected to make handover of patients to the resident on call when indicated. The Chief resident will assign the weekly schedule for the team. When the Chief resident is absent, the resident with most seniority takes this responsibility.

Weekly schedule: Variable; need to verify – posted at McMaster and HGH clinic sites

| Monday | Tuesday | Wednesday | Thursday | Friday |
|------------------------------|--------------|---------------------------|--------------------------|---|
| MUMC | MUMC | MUMC | MUMC | MUMC |
| Clinic Voice clinic OR | Clinic OR | Clinic OR | Clinic OR | Clinic OR1 OR2 (2/4weeks) OR2 Jeney (2/4weeks) |
| HGH | HGH | HGH | HGH | HGH |
| Clinic OR (skull base) | Clinic | Clinic OR (skull base) | Clinic OR (2/4 weeks) | Clinic OR (1/4 weeks) |

HGH clinic runs three days per week, which are variable; OR (skull base) this time is variable

Call:

You will be assigned to be on call with the Otolaryngology-Head and Neck Surgery service. The Chief resident assigned to the call schedule will make up your call schedule. Please note that call during weekdays is from 17:00 to 07:00 hrs and weekend call is from Friday 17:00 to Monday 07:00 hrs unless notified differently. Call will be set according to the PARO guidelines.

Overall Objectives:

It is recognized that the resident may not be exposed to all elements of these objectives; however at the conclusion of the rotation the resident should demonstrate knowledge and competency in the following:

The resident is expected to gain understanding and knowledge of more advanced pediatric cases, general otolaryngology, otology, rhinology, laryngology, and anterior skull base/neuroendocrine and facial plastic surgery. Upon completion of the PGY5 year, the resident will have attained adequate skills and knowledge to diagnose and manage common and most advanced Otolaryngology-Head and Neck presentations preparing you to take the Royal College examination.

The Assessment of the resident on this rotation will be completed by using the in training evaluations report (ITER) and the activity log of surgical skill procedures on MedSIS. The bolded intrinsic CanMEDS roles will be part of the assessment on the ITER.

Specific Objectives:

Medical Expert

- (1.1) Demonstrate compassion for patients
- (1.3) Apply knowledge of the clinical and biomedical sciences relevant to Otolaryngology-Head and Neck Surgery**

Understand in detail the anatomy, embryology, histology and physiology of the ear, the nose, the paranasal sinuses, the upper aero digestive tract, salivary glands, thyroid/parathyroid glands, neck and lymphatic system

Apply clinical and biomedical sciences to manage:

➤ **General otolaryngology presentations with:**

- **Emergent upper airway obstruction**
- **Head and neck trauma (blunt, penetration)**
- **Severe epistaxis and complications**
- **Upper aero digestive diseases:** (see also Rhinology and Laryngology).
 - Inflammatory and infectious: laryngitis, epiglottitis, tracheitis, laryngotracheobronchitis, angioedema, obstructive sleep apnea, pharyngotonsillitis, aphthous, glossitis, stomatitis, herpetic oropharynx lesions, and oral-pharynx-esophageal candidiasis.
- **Salivary glands diseases/disorders in depth:**
 - Congenital: cyst/fistula of first branchial arch, hemangioma and lymphangioma
 - Infectious (viral, bacterial, granulomatosis)
 - Sialadenosis-sialosis, sialolithiasis, Sjogrens, sarcoidosis
 - Sialorrhea
 - Radiology characteristics related to certain salivary gland pathology such as sialolithiasis, sialadenitis, Sjogren's, duct stricture and blockage
 - Neoplasm benign, malignant

Apply clinical and biomedical sciences to manage:

➤ **Pediatric Otolaryngology presentations with:**

- **Emergent upper airway obstructions in NICU, PICU, ER**
- Stridor in neonates and infants
- Foreign body upper aero digestive tract
- Caustic ingestion/burns
- **Congenital anomalies: (ear, craniofacial, nasal, laryngeal, neck)**
- **Hearing loss all etiologies and common syndromes**
- Indication and interpretation of audiometry, impedance audiometry, auditory brain stem response and otoacoustic emissions
- **Rehabilitation for hearing loss: selection and indications for hearing aids, BAHA and cochlear implants**
- **Cholesteatoma congenital and acquired**
- **Juvenile nasopharyngeal**
- Sinusitis (acute, chronic with/without polyp, cystic fibrosis, complications)
- **Dysphonia, speech and swallowing disorders**
- **Recurrent respiratory papillomatosis**
- **Head and neck neoplasms benign and malignant**

Apply clinical and biomedical sciences to manage:

➤ **Rhinology presentations with:**

- **Nasal and septal deformity**
- Rhinosinusitis: acute, chronic, with/without polyps and complications, fungal local and invasive
- **Anosmia**
- **Sinonasal mass**
- **CSF rhinorrhea**

Apply clinical and biomedical sciences to manage:

- Laryngology presentations with:
 - Dysphagia
 - Dysphonia
 - **Laryngeal trauma**

Apply clinical and biomedical sciences to manage:

- **Otology presentations with:**
 - **Hearing loss conductive, sensorineural, and mixed, including sudden sensorineural hearing loss, autoimmune, ototoxicity**
 - **Otosclerosis and principle of stapedectomy**
 - **Menieres disease and hydrops**
 - **Tinnitus**
 - **Otitis media and complications including mastoiditis and cholesteatoma**
 - **Otitis externa and complications, including necrotizing otitis externa**
 - **Temporal bone trauma/fracture**
 - **Other trauma external/middle ear, barotrauma**
 - **Indications, technical aspects and interpretations of conventional audiometry, impedance audiometry, electrocochleogram, auditory brainstem response, otoacoustic emissions**
 - **Rehabilitation for hearing loss: hearing aids, implants and other hearing devices**

Apply clinical and biomedical sciences to manage:

- Neuroendocrine/anterior skull base presentations with:
 - **Sellar tumors - Pituitary adenoma, other**
 - **Clival tumors – Chordoma, Chondroma, other**
 - **Other neoplasms – e.g. Meningioma, esthesioneuroblastoma**
 - Repair of skull base defects including CSF leak management
 - Course of the cranial nerves through the skull base and their foramina
 - Orbit and optic nerves,
 - principle of endoscopic orbital and optic nerve decompression

Apply clinical and biomedical sciences to manage:

- **Facial Plastics and Reconstructive Surgery presentations with:**
 - **Benign and malignant skin lesions of the face and neck and their reconstruction/local flaps**
 - **Congenital protrusion of auricle / otoplasty techniques**
 - **Deformity of nasal bone post trauma, congenital**
 - **Cosmetic and functional rhinoplasty**
 - **Removal nasal hump cartilage/bone, grafting**

- Nasal tip correction
- Nasal valve correction
- **The aging face**

- (1.5) Perform clinical assessments that address the breadth and depth of issues in each case with recommendations that are well-documented
- (1.6) Maintain a duty of care and patient safety while balancing multiple responsibilities
- (1.7) Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- (2.1) **Identify and recognize and manage life threatening or emergent issues of surgical patients including but not limited to patient involved in upper airway obstruction, haemorrhage**
- (2.2) Ability to elicit complete history, perform a detailed physical exam and select appropriate investigations , and interpret their results for the purpose of diagnosis and management, disease prevention and health promotion of the above clinical presentation
- (2.4) **Develop, implement and document management plans for more complex problems in Otolaryngology-Head and Neck Surgery**
- (3.1) Determine the most appropriate procedures or therapies for the purpose of assessment and/or management that is safe and patient-centered
- (3.2) **Obtain and document informed consent explaining the risks and benefits of, and the rational for medical treatment and surgical procedures of the complex cases**
- (3.3) Able to triage a procedure, therapy taking into account clinical urgency and available resources and advocate for their patient's procedure or therapy
- (3.4) **Perform the following procedures in a skillful, fluid, and safe manner with minimal assistance or no assistance:**
 - General Otolaryngology
 - **Intubations in acute airway obstruction with flexible scope**
 - **Tracheostomy in critical care setting**
 - **Tracheostomy: percutaneous/opened**
 - OSAS: tonsillectomy, uvulopalatopharyngoplasty, tongue base reduction
 - **Excision submandibular gland**
 - **Parotidectomy with minimal assistance**
 - Excision of ranula with assistance
 - **Branchial cleft cyst removal**
 - Pediatric Otolaryngology
 - **Flexible nasopharyngolaryngoscopy in neonates, infants and children**
 - **Rigid bronchoscopy diagnostic and with removal foreign body**

- **Rigid esophagoscopy diagnostic and with removal of foreign body**
 - **Tracheostomy in neonates/infants with assistance**
 - **Direct laryngoscopy diagnostic, removal foreign body, lesions with debrider/laser**
 - **Cortical mastoidectomy, advanced mastoidectomy with assistance**
 - **Tympanoplasty**
 - **Ossiculoplasty with assistance**
 - Basic endoscopic sinus surgery
 - **Drainage subperiosteal orbital abscess with assistance external/endoscopic approach**
 - Choanal atresia repair with assistance
 - **Thyroglossal cyst removal (sistrunk)**
 - **Branchial cleft cyst removal with minimal assistance**
 - **Drainage deep neck abscess and retropharyngeal abscess**
- Rhinology
- **Septoplasty complex and revision septoplasty**
 - **Endoscopic sinus surgery complete sphenoidectomy including revisions**
 - **Endoscopic sinus surgery frontal recess with minimal assistance**
 - Endoscopic sinus surgery repair of CSF leak with assistance/observation
 - **Drainage of subperiosteal orbital abscess external/ endoscopic approach**
 - **External approach to sinuses: ethmoidectomy, frontal trephination, frontal sinus osteoplasty with assistance**
 - Endoscopic or external medial wall maxillectomy with assistance
 - Frontal sinus fracture repair with assistance/observation
 - **Epistaxis: endoscopic sphenopalatine artery cautery and ligation**
 - Epistaxis: anterior ethmoid artery, internal maxillary artery ligation with assistance
- Laryngology
- Laryngoscopy, esophagoscopy and bronchoscopy with or without foreign body removal and/or biopsy and/or dilatation
 - **Microlaryngoscopy with or without biopsy, excision lesion, CO2 laser removal**
 - **Thyroplasty**
- Otology
- Intratympanic therapeutic injections
 - Myringoplasty paper patch in office
 - **Tympanoplasty**
 - **Ossiculoplasty**
 - **Cortical mastoidectomy**
 - **Mastoidectomy: antrum opening, epitympanum, removal incus/head malleus**
 - **Mastoidectomy canal wall down with assistance**
 - Mastoidectomy facial recess approach with assistance
 - Mastoidectomy for facial nerve decompression with assistance/observation

- Neuroendocrine/Anterior skull base:
 - Endoscopic approaches to sellar, parasellar, planum sphenoidale, clival, cribiform, frontal, pterygopalatine, and odontoid regions with assistance/observation
 - CSF leak and skull base repair – grafts and local/pedicle endoscopic repair – with assistance/observation
 - Combined approaches to nasal/CNS tumors with assistance/observation
- Facial Plastic and Reconstructive Surgery:
 - **Rhinoplasty: intercartilagenous incision and skin elevation, lateral/ medial/ intermediate/ transcutaneous osteotomy with assistance**
 - **External rhinoplasty with assistance or observation**
 - **Otoplasty with assistant**
 - **Excision of facial/neck cutaneous lesions and closure with local rotation/advancement skin flaps**

(4.1) Establish and implement a plan for routine post-procedure care of the listed procedures

(4.1) Implement a patient-centered care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation when needed

(5.1) Apply the stages for disclosure of adverse events; report patient safety incidents to appropriate institutional representatives. Identify potential improvement opportunities arising from harmful patient safety incidents and near misses

(5.2) **Use procedural checklists, surgical timeouts, debriefing, structured communication tools, or care paths to enhance patient safety**

Communicator

(1.5) **Manage disagreements and emotionally charged conversations**

(1.6) **Tailor approaches to decision-making to patient capacity, values and preferences and adapt to their unique needs and preferences**

(2.1) **Integrate, summarize, and present the information obtained from a patient-centered interview presenting with more complex issues**

(2.2) **Provide a clear structure for and manage the flow of an entire patient encounter**

(3.1) **Communicate clearly with patients and others in the setting of ethical dilemmas**

(3.2) Plan and document follow-up to a harmful patient safety incident

(5.1) **Document clinical encounters in an accurate, complete, timely and accessible manner, and in compliance with legal and privacy requirements**

(5.2) Demonstrate an understanding of the role of social media in a medical practice

(5.3) Share information with patients and others in a manner that respects patient privacy and confidentiality

Collaborator

- (1.2) **Identify indications that necessitate consultation with other health care professionals, such as difficult airways, complex hearing, balance, speech and swallowing disorders**
- (1.3) **Engage in respectful shared decision-making with physicians and other colleagues**
- (2.1) Delegate tasks and responsibilities in an appropriate and respectful manner
- (2.1) Show respect towards collaborators
- (2.2) **Implement strategies to promote understanding, manage differences and resolve conflicts in a collaborative manner**

Leader

- (1.1) Incorporate evidence based medicine for quality assurance and improvement
- (1.1) **Perform audits/self-audits of your clinical practice and their implication for quality improvement**
- (1.2) **Contribute to culture that promotes patient safety**
- (1.3) Analyze harmful patient safety incidents and near misses to enhance systems of care
- (1.4) Use health informatics to improve the quality of patient care and optimize patient safety
- (2.1) **Allocate health care resources for optimal patient care**
- (2.2) **Apply evidence and management processes to achieve cost-appropriate care**
- (3.1) **Demonstrate leadership skills to enhance health care, lead the junior residents and assume the role of chief resident**
- (4.1) Set priorities and manage time to integrate practice and personal life
- (4.3) Implement processes to ensure personal practice improvement

Health Advocate

- (1.1) Work with patients to address the determinants of health that affect them
- (1.2) Work with the patient and family to increase opportunities to adopt healthy behaviours
- (1.3) **Incorporate disease prevention, health promotion and health surveillance activities while interacting with individual patients**

Scholar

- (1.1) **Review and update earlier learning plans, identify learning needs in preparation for the Royal College examination**
- (1.1) Obtain a satisfactory performance at your residency oral/written exam and at the Canadian in training exam
- (1.2) Maintain a surgical procedure log, surgical evaluation forms
- (1.2) Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance
- (1.3) **Lead and engage in collaborative learning projects**
- (2.1) **Be a positive role-model to more junior residents**
- (2.2) Ensure a safe learning environment for all members of the team
- (2.3) **Ensure patient safety is maintained when learners are involved**
- (2.4) Plan and deliver a learning activity (M&M round, coclia session)
- (2.5) **Provide effective feedback to enhance learning and performance of others**
- (3.1) **Seek for advice/consultation to address practice uncertainty**
- (3.4) **Integrate best evidence and clinical expertise into decision-making in their practice**

Professional

- (1.1) **Manage complex issues while preserving confidentiality in a professional manner**
- (1.2) **Demonstrate excellence in all aspects of practice**
- (1.3) **Manage ethical issues encountered in independent practice**
- (1.4) **Recognize and manage conflicts of interest in independent practice**
- (2.2) Demonstrate a commitment to patient safety and quality improvement
- (3.3) Participate in peer assessment and standard-setting
- (4.2) **Manage competing personal and professional priorities during residency**
- (4.3) Support peers in their professional transitions and provide mentorship

Bibliography suggestions

Bluestone/Stool: *Pediatric Otolaryngology*

Deweese and Saunders: *Otolaryngology-Head and Neck Surgery*

Byron J Bailey: *Head and Neck Surgery-Otolaryngology*

Cummings: *Otolaryngology- Head and Neck Surgery*

Lee K J: *Essential Otolaryngology: Head and Neck Surgery*

Radiology

Hermans R: *Head and Neck Cancer Imaging* on line

Harnsberger: *Handbook of Head and Neck Imaging*

The resident should read these current journals

Journal of Otolaryngology- Head & Neck Surgery

Archives of Otolaryngology- Head & Neck Surgery

Laryngoscope

Surgical skills references

Byron J Bailey: *Atlas of Head & Neck Surgery-Otolaryngology*

Montgomery W Wayne: *Surgery of the upper respiratory system vol.2*

Lore: *An Atlas of Head and Neck Surgery*

Peter John Wormwald: *Endoscopic Sinus Surgery*

House Ear Institute: *Temporal Bone Surgical Dissection Manual.*

Brackmann, Shelton and Arriaga. *Otologic Surgery.* Philadelphia: W. B. Saunders Company, 2001

Sanna Mario and al. *Middle Ear and Mastoid Microsurgery* 2003

Goycoolea MarcosV, Paparella: *Atlas of otologic surgery*

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