McMaster Otolaryngology-Head and Neck Surgery
Goals & Objectives & Competencies
Otolaryngology-Head & Neck Surgery Rotation
Hamilton Health Sciences
CanMEDS 2015

Senior Core of Discipline Stage-Fourth Year Resident

Overview

During the fourth year of residency training the resident will spend 5 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 & 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/ competencies with the Clinical Teaching Unit Director at the beginning and at the end of the rotation to facilitate meeting the objectives/competencies.

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 MUMC 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 on home call with the Otolaryngology-Head and Neck Surgery service. The Chief resident 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. At the end of the call shift, you must make handover of patients to the team when indicated. Call will be set according to PARO guidelines.

Overall Objectives & Competencies:

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:

Residents are 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 PGY4 year, residents will have attained adequate skills and knowledge to diagnose and manage common and most advanced otolaryngologic pathologies.

Residents will be working at completing Entrustable Professional Activities (EPAs) observations from the Senior Core of Discipline stage in Otolaryngology-Head and Neck Surgery program. The EPAs are listed on the resident's Competence by Design road map schedule and at the end of this document. For the specific details of each EPA, please refer to the Royal College Mainport resident ePortfolio or McMaster MedSIS and to the educational resident manual located on the Otolaryngology-Head & Neck Surgery division website.

(Please note that objectives/competencies in bold are found on some observation forms of EPAs)

Specific Objectives & Competencies:

Medical Expert

(1.1) Demonstrate compassion for patients

(1.4) **Apply knowledge of the clinical and biomedical sciences relevant to Otolaryngology-Head and Neck Surgery**

Understand in greater details 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 and non emergent 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:**
  - **Acute airway obstructions in NICU, PICU, ED**
  - **Chronic airway obstruction and principal diagnostic imaging**
  - 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**
  - **Cochlear implants investigation and indication**
  - **Cholesteatoma congenital and acquired**
  - **Juvenile nasopharyngeal**

- Sinusitis (acute, chronic with/without polyp, cystic fibrosis, complications)
- Benign vocal cord lesions
- **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/invasive**
  - **Providing post-endoscopic follow-up care**
  - **Anosmia**
  - **Sinonasal mass**
  - **CSF rhinorrhea**

Apply clinical and biomedical sciences to manage:

- **Laryngology presentations with:**
  - Dysphagia
  - Dysphonia
  - **Laryngeal trauma**
  - **Chronic airway obstruction**
    - **Principle of diagnostic imaging**
    - **Voice and airway analysis**
    - **Diagnostic endoscopy**
    - **Aerodynamic testing**

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**

(1.4) Perform focused clinical assessments with recommendations that are well-documented

(1.5) **Perform clinical assessments that address the breadth and depth of issues in each case**

(1.6) **Maintain 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 and seek assistance in complex and new situations**

(2.1) **Identify and recognize life threatening or emergent issues of surgical patients and determine priorities to be addressed**

(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

(2.2) **Select and interpret appropriate investigations for more complex presentations based on differential diagnosis**

(2.4) **Develop, implement and document management plans for more complex problems in Otolaryngology-Head and Neck Surgery**

(2.4) **Provide timely and adequate responses to complications and undesired side effects of treatment**

(3.1) **Integrate all sources of information to develop a procedural or therapeutic plan that is safe, patient-centred, and consider risks and benefits of all approaches**

(3.2) **Obtain and document informed consent for complex medical and surgical procedures and therapies**

(3.4) **Perform the following (bolded) 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 elective and emergent**
  - **OSAS: tonsillectomy, uvulopalatopharyngoplasty, tongue base reduction**
  - Biopsy/FNA neck lymphatic node
  - **Excision submandibular gland**
  - **Parotidectomy superficial**
  - Excision of ranula
  - **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**
  - **Direct laryngoscopy diagnostic, removal foreign body, lesions (papillomatosis) with debrider/laser**
  - **Cortical mastoidectomy, advanced mastoidectomy**
  - **Tympanoplasty**
  - **Canaloplasty**
  - **Ossiculoplasty**
  - Endoscopic sinus surgery
  - **Drainage subperiosteal orbital abscess external/endoscopic approach**
  - Choanal atresia repair
  - **Thyroglossal cyst removal (sistrunk)**
  - **Branchial cleft cyst removal**
  - **Drainage deep neck abscess and retropharyngeal abscess**

- Rhinology
  - **Septoplasty, revision septoplasty**
  - **Complete endoscopic sinus surgery (nasal polypectomy, uncinectomy, anterior posterior ethmoidectomy, maxillary antrostomy and sphenoidoethmoidectomy)**
  - Endoscopic sinus surgery frontal recess
  - Endoscopic sinus surgery repair of CSF leak with assistance/observation
  - **Drainage of subperiostal orbital abscess external/ endoscopic approach**
  - External approach to sinuses: ethmoidectomy, frontal trephination, frontal sinus osteoplasty
  - Endoscopic or external medial wall maxillectomy
  - **Setting up the image system guidance**
  - Frontal sinus fracture repair

- **Endoscopic ligation sphenopalatine and ethmoid artery**

- 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**

- Otology
  - **Intratympanic therapeutic injections**
  - **Myringoplasty paper patch in office**
  - **Tympanoplasty**
  - **Harvesting graft temporalis fascia, perichondrium, cartilage**
  - **Ossiculoplasty**
  - **Canaloplasty**
  - **Mastoidectomy canal wall up**
  - Mastoidectomy canal wall down
  - Mastoidectomy facial recess approach

- Neuroendocrine/Anterior skull base:
  - Endoscopic approaches to sellar, parasellar, planum sphenoidale, clival, cribiform, frontal, pterygopalatine, and odontoid regions CSF leak and skull base repair – grafts and local/pedicle endoscopic repair –
  - Combined approaches to nasal/CNS tumors

- Facial Plastic and Reconstructive Surgery:
  - Rhinoplasty: intercartilagenous incision and skin elevation, lateral/ medial/ intermediate/ transcutaneous osteotomy
  - External rhinoplasty
  - Otoplasty
  - **Excision and closure of facial cutaneous benign and malignant lesions**
  - **Closure with local rotation/advancement skin flaps face and neck**

(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**

(4.1) **Provide long-term management after medical and/or surgical treatment if indicated**

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

Communicator

(1.5) **Recognize when strong emotions (anger, anxiety, fear or sadness) are impacting an interaction and respond appropriately**

(1.6) **Recognize the communication requirements for patients who are deaf, hard of hearing or with speech and or voice disorder**
(2.1) **Integrate, summarize, and present the information obtained from a patient-centered interview presenting with more complex issues**
(2.2) **Manage the flow of challenging patient encounters, including those with angry, distressed, or excessively talkative individuals**
(3.1) **Share health care information and plans with patients and their families**
(3.2) Apologize appropriately for a harmful patient safety incident
(5.1) **Adapt record keeping to specific guidelines of Otolaryngology-Head and Neck Surgery and the clinical context**

Collaborator

(1.2) **Consult as needed with other health care professionals (audiologist, speech language pathology, respiratory technicians and other physicians)**
(1.3) **Communicate effectively and timely with physicians and other colleagues in the health care professions**
(2.1) **Delegate tasks and responsibilities in an appropriate and respectful manner**
(2.1) **Maintain positive relationships in all professional contexts**
(3.2) Recognize and act on patient safety issues during transfer of care

Leader

(1.1) Demonstrate effective skills in quality assurance
(1.2) **Engage patients and their families in the continuous improvement of patient**
(1.4) Use health informatics to improve the quality of patient care, to optimize patient safety and suggest changes to the team when applicable
(2.1) **Use clinical judgment to minimize wasteful practices**
(3.1) **Demonstrate leadership skills by contributing to a health care change initiative**
(4.2) **Adjust educational experiences to gain competencies necessary for future independent practice**

Health Advocate

(1.1) **Facilitate access to local and national services and resources that are available for patients, including but not limited to those who are deaf or hard of hearing**
(1.2) Apply the principles of behaviour change during conversations with patients and families about adopting healthy behaviours
(1.3) **Promote risk reduction through UVA/UVB protection**
(2.3) Promote policies that encourage early identification of patients presenting with disorders of the head and neck through screening programs for hearing impairment and malignancy

Scholar

(1.1) **Prepare, read and learn around clinical and surgical cases, understand the steps of the proposed treatment and participate appropriately**
(1.1) **Review and update earlier learning plans, identify learning needs related to all CanMEDS roles to generate immediate and long-term career goals**
(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) **Seek and interpret multiple sources of performance data and feedback to improve performance**
(1.3) Participate in collaborative learning projects
(2.3) **Supervise learners and ensure they work within limitations, seek guidance and supervision**
(2.1) **Use strategies for deliberate, positive role-modeling**
(2.4) **Teach medical students, more junior residents or other health care professionals**
(3.1) **Recognize practice uncertainty, knowledge gaps and seek for advice/consultation**
(4.3) Contribute to research endeavours

Professional

(1.1) **Manage complex issues while preserving confidentiality in a professional manner**
(1.2) Demonstrate a commitment to excellence in all aspects of practice
(1.3) **Manage ethical issues encountered in the clinical and academic setting**
(1.4) **Recognize and manage conflicts of interest**
(3.3) **Participate in the assessment of junior learners**
(4.2) Manage competing personal and professional priorities during residency

Entrustable Professional Activities

Assessment:
The following Entrustable Professional Activity (EPA) assessment forms from the Senior CORE of Discipline stage must be completed during the rotation; however at the conclusion of the rotation it is not expected that all EPAs will be achieved:

Form 1-Royal College Mainport e-Portfolio or McMaster MedSIS
Form 2-Royal College Mainport e-Portfolio or McMaster MedSIS
Form 3-Royal College Mainport e-Portfolio or McMaster MedSIS

During the rotation, you need to work on the following EPAs for Competencies:

EPA 3.1
Providing post-operative management-Form 1
EPA 3.2
Managing an inpatient surgical service (SC)-Form 3
EPA 3.5
Providing emergency surgical management for patients with acute airway problems-Form 1 & 2
EPA 3.9
Assessing and managing adult and pediatric patients with sleep disordered breathing-Form 1 & 2
EPA 3.10
Assessing patients with facial paralysis, and providing recommendations for both surgical and non-surgical treatment options-Form 1
EPA 3.13
Providing advanced surgical management for patients with epistaxis (SC)-Form 1 & 2

EPA 3.14
Assessing and managing patients presenting with rhinosinusitis (SC)-Form 1 & 2
EPA 3.17
Providing surgical management for patients with chronic airway obstruction (SC)-Form 2
EPA 3.18
Providing surgical management for patients with dysphonia (SC)- Form 2
EPA 3.22
Providing surgical management of uncomplicated patients requiring superficial parotidectomy (SC)-Form 2
EPA 3.25
Assessing and managing patients with benign or malignant skin lesions of the head and neck (SC)-Form 1 & 2
EPA 3.29
Assessing adult and pediatric patients with hearing loss and providing an initial management plan, both surgical and non-surgical (SC)-Form 1 & 2

During the rotation, you can work on any pending Junior Core EPAs when applicable.

The following <u>CanMEDS intrinsic roles</u> assessment <u>must</u> be completed during the rotation <u>when indicated on your CBD road map</u>:

- Faculty provides summative feedback on CanMEDS intrinsic roles (non-medical expert role) by using the narrative observation form. The narrative form is located on the Royal College Mainport eportfolio or McMaster MedSIS and must be triggered by the learner or observer.
- 360 (multisource feedback x1 business clerk, x1 OR nurse)
- OR dictation x1
- Consult dictation x1

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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