Goals and Objectives for the Otolaryngology-Head & Neck Surgery Rotation
Resident PGY5
Hamilton Health Sciences (6 four-week rotational blocks)

Overview

During the fifth year of their residency training the resident will spend 6 four-week rotational blocks at Hamilton Health Sciences. The resident will gain experience in dealing with outpatients in the clinic and with inpatients on the wards, the intensive care units, the operating room and in the emergency department. The otolaryngology service at the McMaster Hospital site involves a significant amount of pediatric practice in addition to adult practice. The Hamilton General and Juravinski Hospitals involve primarily an adult practice only. All residents must review their learning objectives with the Otolaryngology staff at the beginning and at the end of the rotation to facilitate meeting the objectives.

Otolaryngology Staff Surgeons: Drs B. Korman, R. Lemckert, J. MacLean, D. Reid and D. Sommer.

Schedule of the week: Varies weekly; need to verify – posted at McMaster and HGH clinic sites at least one month in advance.

You will be expected to make rounds with your team in the mornings before starting in the operating room or other activities of the service and at the end of the day. You are expected to make handover to the resident on call. You will assign the work schedule for the week. If the senior resident is absent, he/she will delegate the resident with most seniority to that role temporarily.

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Please note that HGH clinic runs three days per week, which are variable
OR (skull base) this time is variable
PGY5 ½ day clinic is variable
Call:

You will be assigned to be on call with the otolaryngology service. The Chief resident will make up your call schedule. Please note that call during weekdays is from 08:00 to 08:00 hrs and weekend call is from Friday 17:00 to Monday 08:00 hrs unless notified differently. Call will be set according to 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 or competency in the following:*

The resident is expected to gain understanding and knowledge of more advanced pediatric cases, general otolaryngology, otology, rhinology, laryngology, anterior skull base/neuroendocrine and facial plastic surgery. The resident will gain experience in the diagnosis, the medical and surgical treatment of the above subspecialty cases. Upon completion of the PGY 5 year, the resident will have attained adequate skills and knowledge to diagnose and manage common and most advanced otolaryngologic pathology preparing them to take the Royal College examination.

Specific Objectives:

Medical Expert

The resident is expected to learn how to:

Continue improvement in skills in clinical history taking and examination of the otolaryngologic patient using basic office instrumentation and office (flexible and rigid) endoscopic and microscopic equipment.
Continue improvement in knowledge in the indications for and interpretation of diagnostic imaging techniques of the head and neck.
A thorough knowledge of advanced audiologic and vestibular testing and treatment strategies.
Synthesize all the information and formulate a diagnostic work-up and treatment plan for common and most advanced ENT problems.
Carry out pre and post-op care on the ward and the clinic.
Obtain efficient follow-up skills related to disease monitoring, compliance with treatment.
Recognize common complications of treatment and their management.
Run the weekly half day residents outpatients clinic effectively with limited supervision.
Knowledge Basic sciences and anatomy:

Understand the basic anatomy and physiology of the ear, nose, paranasal sinuses, upper aerodigestive tract, thyroid/parathyroid glands, neck and anterior skull base.

Knowledge clinical:

1. Principles of evaluation and management of patients in Pediatric Otolaryngology.

- Acute airway obstructions in NICU, PICU, ER
- Stridor in neonates and infants
- Foreign body upper aerodigestive tract
- Caustic ingestion/burns
- Common congenital anomalies: craniofacial, choanal atresia, branchial cleft, thyroglossal cyst, TEF etc
- Congenital hearing loss
- Congenital anomalies of the external, middle, inner ear
- Hearing loss all etiologies
- Cochlear implants selection and indication
- Indication and interpretation of audiometry, impedance audiometry, auditory brain stem response, otoacoustic emissions
- Chronic otitis media
- Acute otitis media with complications
- Cholesteatoma congenital and acquired
- Head and neck neoplasms benign and malignant
- Acute sinusitis with complications

2. Principles of evaluation and management in General Otolaryngology including:

- Acute upper airway obstructions
- Head and neck trauma (blunt, penetration)
- Upper aerodigestive diseases
- Salivary glands diseases
- Endocrine thyroid/parathyroid
- Severe epistaxis

3. Principles of evaluation and management of patients in Otology.

- Temporal bone trauma/fracture
- Other ear trauma: perforation TM, barotraumas
- External otitis: bacterial, fungal, malignant
- Otitis media: acute, serous, chronic
- Hearing loss all etiologies
- Tinnitus
- Mastoiditis: acute and chronic
- Cholesteatoma
- External and middle ear neoplasms
- Menieres disease and hydrops
- BPPV
- Otosclerosis
- Ototoxicity
  - Indications and interpretations of conventional audiometry, impedance audiometry, electrocochleogram, auditory brainstem response, otoacoustic emissions
  - Rehabilitation for hearing loss: hearing aids, implants and other hearing devices

4. Principles of evaluation and management of patients in Rhinology.

- Nasal obstruction
- Anosmia
- Rhinitis all types (including allergic)
- Sinusitis: acute, chronic, viral, bacterial, fungal local and invasive
- Nasal/sinus polyps
- Nasal sinus neoplasms benign, malignant
- CSF leak
- Frontal sinus fractures

5. Principles of evaluation and management of patients in Laryngology.

- Complete voice assessment
- Professional voice
- Indication and interpretation of voice videostroboscopy
- Benign vocal cords lesions (nodules, polyps, granuloma, inclusion cyst, papilloma etc.)
- Muscle tension dysphonia
- Neurological diseases affecting voice (stroke, Parkinson, etc.)
- Systemic diseases affecting voice (Wegener's, rhumatoid arthritis, sarcoidosis etc.)
- Laryngitis acute and chronic
- Laryngopharyngeal reflux
- Vocal paralysis
- Subglottic stenosis in adult

6. Principles of evaluation and management of patients in Neuroendocrine/ Anterior skull base lesions:

- Sellar neoplasms - Pituitary adenoma, other
- Clival neoplasms – Chordoma, Chondroma, other
- Other neoplasms – eg. 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

7. Principles of evaluation and management of patients in Facial Plastics.

- Nasal fractures
- 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
- The aging face

**Technical and Operative skills:**

1. Advanced pediatric:

- Perform flexible nasopharyngolaryngoscopy in neonates, infants and children
- Perform rigid bronchoscopy diagnostic and with removal foreign body
- Perform rigid esophagoscopy diagnostic and with removal of foreign body
- Tracheostomy in neonates/infants/children
- Direct laryngoscopy diagnostic, removal foreign body, lesions (papillomatosis) with debridor/laser
- Cortical mastoidectomy, advanced mastoidectomy
- Tymanoplasty
- Ossiculoplasty
- Endoscopic sinus surgery uncunectomy, ethmoidectomy, maxillary sinusotomy
- Drainage subperiosteal orbital abscess external/endoscopic approach
- Choanal atresia repair with assistance
- Thyroglossal cyst removal (sistrunk)
- Branchial cleft cyst removal
- Salivary gland surgery with limited staff supervision
- Drainage retropharyngeal abscess

2. General otolaryngology:

- Tracheostomy in critical care setting
- Tracheostomy: percutaneous/opened
- OSAS: tonsillectomy, uvulopalatopharyngoplasty, tongue base reduction
- Thyroidectomy
- Parathyroidectomy with limited staff supervision
-Biopsy/FNA lymphatic node of neck
-Excision submandibular gland
-Parotidectomy with limited staff supervision
-Excision of ranula
-Branchial cleft cyst removal

3. Otology:

-Myringotomy and tubes placement in office
-Myringoplasty paper patch in office
-Perform particle repositioning manoeuvre
-Transtympanic gentamycin/steroid treatment in office
-Tympanoplasty elevation of tympanic flap
-Harvesting graft temporalis fascia, perichondrium, cartilage
-Tympanoplasty placement of graft
-Ossiculoplasty with limited staff assistance
-Cortical mastoidectomy
-Mastoidectomy: antrum opening, epitympanum, removal incus/head malleus
-Mastoidectomy canal wall down with limited staff supervision
-Mastoidectomy facial recess approach with assistance
-Mastoidectomy for facial nerve decompression with assistance/observation
-Stapedectomy with assistance/observation

4. Rhinology:

-Rigid, flexible nasal sinus endoscopy
-Biopsy nasal cavity
-Septoplasty
-Revision septoplasty with assistance
-Inferior turbinates reduction, cauterization
-Endoscopic sinus surgery nasal polypectomy, uncinctomy, ethmoidectomy, maxillary sinusotomy with limited supervision
-Revision endoscopic sinus surgery with assistance
-Endoscopic sinus surgery frontal recess, sphenoidotomy with assistance or limited supervision
-Endoscopic sinus surgery repair of CSF leak with assistance/observation
-Drainage of subperiostal orbital abscess external/ endoscopic approach with assistance or limited supervision
-External approach to sinuses: ethmoidectomy, frontal trephination, frontal sinus osteoplasty with assistance or limited supervision
-Endoscopic treatment of benign sino-nasal neoplasms such as inverted papilloma with assistance/observation
-Endoscopic or external medial wall maxillectomy with assistance/observation
-Setting up the image guidance system
-Frontal sinus fracture repair with assistance/observation
Epistaxis: endoscopic sphenopalatine artery ligation with assistance/supervision
Epistaxis: anterior ethmoid artery, internal maxillary artery ligation with assistance/supervision

5. Laryngology:

- Microlaryngoscopy biopsy/excision lesions
- Microlaryngoscopy excision lesion with CO2 laser
- Thyroplasty with limited supervision (are residents doing these at HHS)
- Repair of laryngeal injuries/fractures with assistance

6. 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
- Endoscopic orbital and optic nerve decompression – observation
- Combined approaches to nasal/CNS neoplasms – with assistance/observation

7. Facial plastics:

- Rhinoplasty: intercartilagenous incision and skin elevation, lateral/medial/intermediate/transcutaneous osteotomy with assistance, observation or supervision
- Rhinoplasty: removal nasal hump cartilage/bone, grafting assistance, observation or supervision
- External rhinoplasty with assistance, observation or supervision
- Nasal tip correction assistance, observation or supervision
- Nasal valve correction assistance, observation or supervision
- Otoplasty with assistance, observation or supervision
- Excision and closure of facial cutaneous benign and malignant lesions with assistance, observation or supervision
- Closure with local rotation/advancement skin flaps face and neck assistance, observation or supervision

**Communicator**

The resident is expected to build on his/her earlier experience in these same areas:

Take a relevant history from the patient, the family and/or paramedics.
Discuss with the patient and/or family the diagnosis, investigations, treatment and potential complications/morbidities.
Discuss and deal with patient’s concerns and complaints appropriately.
Deal with unfavorable outcome or unrealistic expectations.
Obtain an informed consent for treatment from the patient and/or family.
Communicate effectively with health care professionals and other members of the team.
Dictate/write consultations, OR reports, progress notes and discharge summaries clearly.
Listen effectively.
Presentation and participation at grand rounds.

**Collaborator**

The resident is expected to demonstrate further proficiency in these same areas:

Consult and interact with respect to other health care professionals, in particular with the anesthesiologist, nurses in the OR, clinics and wards, respiratory technicians, audiologists, speech language pathologists and clerks in the outpatient clinics. Consult and work effectively with the attending staff.
Consults and works effectively with other medical specialists.
Consults and works effectively with colleagues, medical clerks and students.

**Manager**

The resident is expected to demonstrate further proficiency in these same areas:

Manage effectively the different tasks involved in the diagnosis and treatment of outpatients and inpatients.
Prioritize responsibilities.
Responsible of organizing the weekly work schedule of your team.
Responsible of scheduling the residents' on call list.
Organize with the booking clerk your weekly half day of clinic.
Demonstrate your ability of leadership.
Keep a log on of your surgical procedures.
Utilize health care resources safely and effectively.
Utilize information technology effectively.
Work well in the health care organization (clinic, ward, ICU, ER and operating room).

**Health Advocate**

The resident is expected to demonstrate further proficiency in these same areas:

Awareness of the health and preventive measures related to foreign body ingestion in children, voice abusive behaviors, environmental allergens and pollution exposure, noise
exposure and hearing loss, tobacco smoking and alcohol consumption as a health risk in head and neck cancer.  
Attention to issues related to public safety/policies.  
Advocate on behalf of patients.  

**Scholar**

The resident is expected to demonstrate further proficiency in these same areas:

Prepare and read around surgical cases and learn the steps of the proposed treatment.  
Read about clinical cases and participate appropriately by asking questions.  
Teach medical students, junior residents and other health care professionals.  
Participate in academic rounds and journal clubs and other educational outlets.  
Demonstrate facility with critical appraisal of the literature, research methodology, bio statistics, in the regularly scheduled Journal Clubs, and at Grand Rounds.  
Practise self-assessment.  
Develop a personal life-long self-education plan, with appropriate guidance.  
Contribute to research endeavours.  
Pursue evidence-based standards for care of common problems in otolaryngology.  
Be alert for opportunities to contribute in the report of cases of mutual interest to audiologists, speech language pathologists, pediatricians, intensive care physicians, neurosurgeons, plastic surgeons and fellow colleagues.  
Prepare the morbidity and mortality rounds.  
Obtain a satisfactory performance at the residency program oral/written examinations.  
Obtain a satisfactory performance at the Canadian in training exam that shows a positive progression compared to the previous year.  

**Professional**

The resident is expected to demonstrate further proficiency in these same areas:

Deliver health care to patients in an honest, ethical and professional manner.  
Recognize own limitations and seek advice and help when needed.  
Accept constructive feedback and act appropriately.  
You will have the opportunity to explore ethical issues such as informed consent and potential complications of treatments, among many others.  
Pursue a balanced life-style.  

**Bibliography suggestions**

Bluestone/Stool: Pediatric Otolaryngology  
Byron J Bailey: Head & Neck Surgery-Otolaryngology  
Cummings: Otolaryngology-Head and Neck Surgery
The resident should read these current journals

Journal of Otolaryngology- Head & Neck Surgery
Archives of Otolaryngology- Head & Neck Surgery
Laryngoscope

Radiology

Hermans R: Head and Neck Cancer Imaging on line
Harnsberger: Handbook of Head and Neck Imaging

Surgery skills references

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
Baker and Swanson: Local Flaps in Facial Reconstruction
Jackson T Ian: Local Flaps in Head and Neck Reconstruction
Tardy M Eugene: Rhinoplasty: The Art and the Science
Sanna Mario and al. Middle Ear and Mastoid Microsurgery 2003.

Approved August 31, 2009
Revised April 5, 2010
Revised September 1, 2013