Goals and Objectives for the Otolaryngology-Head & Neck Surgery Rotation
Resident PGY4
Hamilton Health Sciences (6 or 7 four-week rotational blocks)

Overview

During the fourth year of their residency training the resident will spend 6 or 7 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 McMaster Hospital involves a significant amount of pediatric practice, in addition to adult practice and the Hamilton General and Juravinski Hospitals involve 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. The Chief resident will assign the schedule of the week for the team. If the Chief resident is absent, he/she will delegate the resident with most seniority to that role temporarily.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUMC Clinic OR</td>
<td>MUMC Clinic OR</td>
<td>MUMC Clinic OR</td>
<td>MUMC Clinic OR</td>
<td>MUMC Clinic OR</td>
</tr>
<tr>
<td>HGH Clinic OR (skull base)</td>
<td>HGH Clinic</td>
<td>HGH Clinic OR (skull base)</td>
<td>HGH Clinic OR (3/4 weeks)</td>
<td>HGH Clinic</td>
</tr>
</tbody>
</table>

Please note that clinics at HGH occur 3 days per week
OR (skull base) this time 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, and anterior skull base/neuroendocrine and facial plastic surgery. Upon completion of the PGY 4 year, the resident will have attained adequate skills and knowledge to diagnose and manage common and most advanced otolaryngologic pathology.

**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 instrumentations 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.

Obtain a better knowledge of advanced audiology 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.

**Knowledge Basic sciences and anatomy:**

Understand the basic anatomy and physiology of the ear, nose, paranasal sinuses, upper aero digestive tract, thyroid/parathyroid glands, neck and anterior skull base.
Knowledge clinical:

1. Principles of evaluation and management of patients in Pediatrics:

- Acute airway obstructions in NICU, PICU, ER.
- Stridor in neonates and infants.
- Foreign body upper aero digestive 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 tumors 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 aero digestive 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, and malignant.
- Otitis media: acute, serous, chronic and complications.
- Disorders of the Eustachian tube.
- Hearing loss all etiologies.
- Tinnitus.
- Mastoiditis: acute and chronic.
- Cholesteatoma.
- External and middle ear tumors.
- Menieres disease and hydrops.
- BPPV.
- Otosclerosis.
-Ototoxicity.
-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.

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

-Nasal obstruction differential diagnosis.
-Anosmia.
-Rhinitis all types (including allergic).
-Sinusitis: acute, chronic, viral, bacterial, fungal local and invasive.
-Nasal/sinus polyps.
-Nasal sinus tumors 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 (Wegeners, 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 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.

7. Principles of evaluation and management of patients in Facial Plastic:

-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 with assistance.
   -Direct laryngoscopy diagnostic, removal foreign body, lesions (papillomatosis) with debrider/laser.
   -Cortical mastoidectomy, advanced mastoidectomy with assistance.
   -Tympanoplasty.
   -Ossiculoplasty with assistance.
   -Endoscopic sinus surgery with assistance.
   -Drainage subperiosteal orbital abscess with assistance external/endoscopic approach.
   -Choanal atresia repair with assistance.
   -ThyroGLOSSAL cyst removal (sistrunk).
   -Branchial cleft cyst removal with assistance.
   -Salivary gland surgery with assistance.
   -Drainage retropharyngeal abscess.

2. General Otolaryngology:

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

3. Otology:

   -Myringotomy and tubes placement in office.
   -Myringoplasty paper patch in office.
   -Perform particle-repositioning maneuver.
   -Transtympanic gentamycin/steroid treatment in office.
   -Tympanoplasty elevation of tympanic flap with limited supervision.
- Harvesting graft temporalis fascia, perichondrium, cartilage.
- Tymanoplasty placement of graft with limited supervision.
- Ossiculoplasty with assistance.
- Cortical mastoidectomy with limited supervision.
- Mastoidectomy: antrum opening, epitympanum, removal incus/head malleus with assistance.
- Mastoidectomy canal wall down with assistance.
- Mastoidectomy facial recess approach with assistance.
- Mastoidectomy for facial nerve decompression with assistance/observation.
- Stapedectomy: 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, uncinection, ethmoidectomy, maxillary antrostomy with limited supervision.
- Endoscopic sinus surgery frontal recess, sphenoidotomy with assistance.
- Endoscopic sinus surgery repair of CSF leak with assistance/observation.
- Drainage of subperiostal orbital abscess external/endoscopic approach with assistance.
- External approach to sinuses: ethmoidectomy, frontal trephination, frontal sinus osteoplasty with assistance.
- Endoscopic treatment of benign sino-nasal tumors such as inverted papilloma with assistance.
- Endoscopic or external medial wall maxillectomy with assistance.
- Setting up the image system guidance.
- Frontal sinus fracture repair with assistance/observation.
- Epistaxis: endoscopic sphenopalatine artery ligation with assistance.
- Epistaxis: anterior ethmoid artery, internal maxillary artery ligation with assistance.

5. Laryngology:

- Microlaryngoscopy biopsy/excision lesions.
- Microlaryngoscopy excision lesion with CO2 laser or debrider.

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/pedicile endoscopic repair – with assistance/observation.
- Endoscopic orbital and optic nerve decompression – observation.
- Combined approaches to nasal/CNS tumors with assistance/observation.
7. Facial Plastic:

- Rhinoplasty: intercartilagenous incision and skin elevation, lateral/medial/intermediate/transcutaneous osteotomy with assistance, observation or supervision.
- Rhinoplasty: removal nasal hump cartilage/bone, grafting observation.
- External rhinoplasty with assistance, observation or supervision.
- Nasal tip correction observation.
- Nasal valve correction observation.
- Otoplasty with assistant, 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 detailed 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.
Participate and present 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.
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).
Keep a log of your surgical procedures.

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, noise exposure, 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 and other health care professionals.
Participate in academic rounds, journal clubs, teachings sessions and other educational outlets.
Accept constructive feedback and act appropriately.
Evaluate proposed diagnosis and treatment with current literature when appropriate.
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.
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.
You will have the opportunity to explore ethical issues such as informed consent and potential complications of treatments, among many others.
Continue to 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

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*
Sanna Mario and al. *Middle Ear and Mastoid Microsurgery* 2003
Goycoolea MarcosV, Paparella: *Atlas of otologic surgery*

Approved October 26, 2009
Revised April 13, 2010
Revised June 17, 2013