Goals and Objectives for the Otolaryngology-Head & Neck Surgery Rotation
Resident PGY4
St. Joseph’s Healthcare Hamilton (3 four-week rotational blocks)

Overview

During the fourth year of their residency training the resident will spend 3 four-week rotational blocks at St. Joseph Healthcare Hamilton. The resident will gain experience in dealing with outpatients in the clinic and with inpatients on the wards, the intensive care units, and the operating room and in the emergency department. The Otolaryngology – Head and Neck service at St Joseph’s Hospital involves a significant amount of head and neck oncology, in addition to general practice and otology/neurotology. All residents must review their learning objectives with the Otolaryngology –Head and Neck staff at the beginning and at the end of the rotation to facilitate meeting the objectives.

Head and Neck Otolaryngologist Staff Surgeons: Drs S. Archibald, M. Gupta, S. Jackson, and J.E.M. Young
General Otolaryngology Staff Surgeon: Dr. E. Jeney
Otology and Neurotology Staff Surgeon: Dr. J Archibald

Schedule of the week:

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.

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(E Jeney) 2nd and 4th week of the month
(M Gupta) this time is variable
Call:

You will be assigned to be on 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 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 acquire sufficient expertise to enable him or her to function as an independent otolaryngology consultant. Although much of this is acquired by enhancing their surgical expertise, greater proficiency is to be gained in the other CanMEDS domains also.

The resident is expected to become proficient in performing the full range of adult otolaryngology procedures except advanced endoscopic sinus surgery, skull base, and neuro-otologic procedures. The resident will have an in-depth exposure to head and neck procedures.

**Specific Objectives:**

**Medical Expert**

The resident is expected to learn how to:

- Continue improvement in skills in clinical history taking and examination of the 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, especially neoplasms.

- Become proficient at reaching a reasonable differential diagnosis and plan of investigation and treatment of common, less common elective and emergency problems, and neoplasms of the head and neck.

- Obtain the knowledge of advanced audiology and vestibular testing and treatment strategies.

- 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 complications of treatment and their management.

**Knowledge Basic sciences and anatomy:**

Understand well in depth the anatomy and physiology of the ear, nose, paranasal sinuses, upper aero digestive tract, thyroid/parathyroid glands and neck.

**Knowledge clinical:**

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

   - Acute upper airway obstructions.
   - Upper aero digestive diseases.
   - Rhinology.
   - Laryngology.
   - Salivary glands diseases.
   - Endocrine thyroid/parathyroid.
   - Severe epistaxis.

2. Principles of evaluation and management of patients in Head and Neck/Oncology:

   Become proficient in establishing a diagnostic plan of investigation, treatment, prognosis of malignant neoplasms of the head and neck and obtain a proper staging related to TNM classification (AJCC).

   - Nasal cavity and paranasal sinuses.
   - Nasopharynx.
   - Oropharynx: Tongue base, soft palate, tonsils.
   - Hypopharynx: piriform sinus, postcricoid, lateral and posterior pharyngeal wall.
   - Oral cavity: lip, oral tongue, floor of the mouth, buccal mucosa, gingiva, hard palate, retromolar.
   - Larynx: supraglottic, glottic, subglottic.
   - Oesophagus: cervical
   - Thyroid gland
   - Major salivary glands
   - Melanoma of the upper aero digestive tract

   Principles of radiotherapy theory, advantages, limitations and complications.
   - Dental precautions and complications related to radiotherapy.
Principles of chemotherapy theory.
-Common chemotherapy agents used in head and neck cancer; combination of agents, advantages and limitations, complications and side effects.

Head and neck lymphatic nodes in cancer patients: diagnosis, frequency related to the primary site, the staging, treatment options/plan (surgical and radiotherapy) and prognosis.

-Head and neck lymphatic neck dissections (basic anatomy, physiopathology, types and indications).
-Cervical metastasis of in situ carcinoma.

Other head and neck neoplasms:
-Parapharyngeal neoplasm.
-Melanoma cutaneous and mucosal.
-Cutaneous malignancy: basal cell carcinoma, squamous cell.
-Temporal bone neoplasm.
-Maxillofacial bone neoplasm.
-Glomus neoplasm.
-Midline granuloma
-Parathyroid glands

Develop an understanding of the “reconstructive ladder” to correct head and neck defects, with a view to formulating a surgical reconstructive plan that takes restoration of cosmetic and function into consideration.

-Define the different types of flaps that can be used for head and neck/maxillofacial reconstruction. Explain their principles of physiology.

-Management options for voice rehabilitation post total laryngectomy.
-Management/rehabilitation for swallowing difficulty/dysphagia post surgery.
-Manage surgical nutrition, fluid and electrolytes balance, wound care, and common complications (bleeding, hematoma, airway obstruction, fistula saliva, chyle, CSF, flap ischemia and congestion, fluid and electrolytes disorders).

Learn to diagnose and treat facial nerve disorders and reanimation strategies. Know the significance of medical co-morbidities and manage more complex problems.

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

The resident will continue to improve their knowledge in otology but will be focusing more in head and neck pathology during this rotation.

-Temporal bone trauma/fracture.
-Other ear trauma: perforation TM, barotraumas.
-External otitis: bacterial, fungal, and malignant.
-Otitis media: acute, serous, chronic and complications.
-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.

**Technical and Operative skills:**

1. General Otolaryngology:

   Develop ability to efficiently perform basic procedures such as:

   - Nasal packing.
   - Peritonsillar abscess incision and drainage.
   - Deep neck space and wound abscess incision and drainage.
   - Removal of foreign bodies from the ear, nose, pharynx, esophagus, trachea and bronchi.
   - Adenotonsillectomy.
   - Trachestomy opened.
   - Myringotomy and tubes insertion.
   - Thyroplasty with supervision.
   - Branchial cleft cyst and thyroglossal cyst removal.
   - Lymphatic node and neck mass biopsy.
   - Septoplasty and turbinoplasty.
   - Endoscopy sinus surgery.

2. Head and Neck/Oncology:

   - Direct laryngoscopy rigid and flexible with biopsy.
   - Esophagoscopy rigid and flexible with biopsy.
   - Bronchoscopy rigid and flexible with biopsy.
   - Biopsy in clinic of lesions from the nasal cavity, oral cavity, oropharynx, skin.
   - FNA of neck masses, lymphatic nodes, salivary gland and thyroid gland lesions.
Demonstrate in-depth knowledge of various approaches to major head and neck procedures.

Perform all or parts of major head and neck procedures with increasing degree of autonomy.

- Submandibular gland excision with supervision.
- Parotidectomy with supervision.
- Tongue wedge excision
- Oral cavity lesion excision.
- Total laryngectomy, laser resection with supervision.
- Open partial laryngectomy with supervision.
- Pharyngectomy with supervision.
- Mandibulectomy, mandibulotomy and rigid fixation observation.
- Thyroidectomy with limited supervision.
- Parathyroidectomy with supervision.
- Neck dissection modified and radical with supervision.
- Excision of skin Cancer and closure with supervision.
- Maxillectomy, medial maxillectomy observation.
- Skull base tumors excision observation.
- Anterior craniofacial resection observation.
- Parapharyngeal neoplasms excision observation.
- Glomus tumor excision observation.

Learn the basic approaches for anterior cranial facial resections.

3. Otology:

On some occasions the resident will be assigned to work with the Otologist in the clinic or the operating room.

- Perform middle ear perfusion of corticosteroids/gentamycin.
- Perform ventilating tube insertion in the office setting.
- Elevate a tympanomeatal flap with limited consultant intervention.
- Perform tympanoplasty with limited consultant intervention.
- Perform canaloplasty with consultant supervision.
- Perform ossiculoplasty with consultant supervision.
- Perform mastoidectomy including canal wall down and combined approaches with consultant supervision.
- Perform posterior tympanotomy with consultant supervision.
- Assist at/observe surgery for treatment of otosclerosis.
- Practice temporal bone dissection.
Communicator

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

- Develop doctor-patient and doctor-family relationships.
- Learn how to present the findings of history and physical examinations in an organized, clear and concise manner to colleagues.
- Learn and apply principles of developing and maintaining health records.
- Learn how to discuss both common and more complex procedures, including their complications, with patients and their families.
- Prepare and present effectively in organized rounds and seminars.

Collaborator

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

- Understand and participate in the surgical team.
- Learn to respect the opinions and roles of other team members.
- Appreciate the strength of the multi-disciplinary head and neck team.
- Demonstrate collegial and professional relationships with other physicians, nurses, office and clinic support staff, operating room personnel, and ER staff.
- Recognize the expertise and the role of allied health professionals, including speech and language pathologists, home care nurses, and social workers.

Manager

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

- Learn to use resources effectively balance patient care, learning needs, and outside activities.
- Allocate finite health care resources wisely, equitably, and ethically.
- Utilise information technology to optimize patient care, and one’s own life-long learning.
- Learn one’s limitations, and when and how to ask other colleagues for their expertise.
- Demonstrate an appreciation of the importance of quality assurance/improvement.
- Keep a log of your surgical procedures.
- Participate in the preparation, presentation, analysis and reporting of morbidity and mortality rounds.

Health Advocate

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

- Learn to advocate for otolaryngology patients and for the specialty.
Demonstrate familiarity with important determinants of health relevant to general otolaryngology and head and neck surgery, such as smoking, alcohol abuse, poor nutrition, UVA and UVB skin exposure, HPV and HIV.

**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. Participate in the teaching of medical students and junior residents. Facilitate learning in patients and other health professionals. Participate in preparation and presentation of weekly City-wide Grand Rounds. 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. Participate in academic rounds, journal clubs, teachings sessions and other educational outlets. 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:

Develop the habits of excellence in patient care. Pursue integrity, honesty and compassion in the doctor-patient relationship. Practise ethically. Recognize one’s own limitations, correct these where appropriate, and seek assistance otherwise. Seek out and act on constructive criticism. Pursue a balanced life-style.

**Bibliography suggestions**

Byron J Bailey: *Head & Neck Surgery-Otolaryngology*  
Cummings: *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*

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