Goals and Objectives for the Otolaryngology-Head & Neck Surgery Rotation
Resident PGY5
St. Joseph’s Healthcare Hamilton (6 four-week rotational blocks)

Overview

During the fifth year of their residency training the resident will spend 6 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, 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/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. You will assign the schedule of the week for the team. If you are absent, you will delegate the resident with most seniority to that role temporarily.

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Call:

You will be assigned to be on call with the otolaryngology-head and neck surgery service. The Chief resident will make up the 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 in advanced endoscopic sinus surgery and skull base procedures. The resident will have an in-depth exposure to head and neck procedures and otology/neurotology.

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 such as bleeding, hematoma, airway obstruction, fistula (CSF, saliva, and chyle), cranial neuropathy, flap ischemia and congestion, fluid electrolytes disorders.

**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) of the following:

   - Nasal cavity and paranasal sinuses.
   - Nasopharynx.
   - Oropharynx: tongue base, soft palate, tonsils.
   - Hypopharynx: piriform sinus, postcriocoid, 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
   - 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.

Principles of radiotherapy theory, advantages, limitations and complications

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 neoplasms.
- Melanoma cutaneous and mucosal.
- Cutaneous malignancy: basocell carcinoma, squamous cell.
- Temporal bone neoplasm.
- Maxillofacial bone neoplasm.
- Glomus tumor.
- 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 reconstructions. 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.

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.
- Tracheostomy opened.
- Myringotomy and tubes insertion.
- Lymphatic nodes and neck mass biopsy.
- Branchial cleft cyst and thyroglossal cyst removal.
- Thyroplasty with limited supervision
- 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.
- Parotidectomy with limited supervision.
- Oral cavity lesion excision. Tongue wedge excision.
- Total laryngectomy, laser resection with supervision.
- Open partial laryngectomy with supervision.
- Pharyngectomy with supervision.
- Mandibulectomy, mandibulotomy and rigid fixation surgery with supervision.
- Thyroidectomy with limited supervision.
- Parathyroidectomy with limited supervision.
- Neck dissection modified and radical with limited supervision.
- Excision of skin Cancer and closure with limited supervision.
- Maxillectomy, medial maxillectomy with supervision.
- Skull base neoplasms excision observation.
- Anterior cranial facial resection observation
- Parapharyngeal neoplasms excision observation.
- Glomus tumor excision observation.
- Repair of subglottic/tracheal stenosis in adults with assistance.

Learn the basic approaches for anterior cranial facial resections.

3. Otology/Neurotology:

Advanced otology

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

- Perform middle ear perfusion of gentamicin.
- Participate in the surgical treatment of vertigo (includes labyrinthectomy, vestibular nerve section, endolymphatic sac surgery and posterior canal occlusion).
- Assist at surgery for treatment of lateral skull base lesions including acoustic neuromas, other benign CPA lesions and petrous apex lesions.

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 enhance their abilities 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.
Participate in the preparation, presentation, analysis and reporting of morbidity and mortality rounds.
Demonstrate the ability of leadership.
Keep a log of your surgical procedures.
Assign the on call and the weekly schedule for the team.

**Health Advocate**

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.
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**

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
Baker and Swanson: Local Flaps in Facial Reconstruction
Papel Ira D: Facial Plastic and Reconstructive Surgery on line
Dolan W Robert: Facial Plastic, Reconstructive and Trauma Surgery on line

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

Montgomery W Wayne: Surgery of the upper respiratory system vol.2
Lore: An Atlas of Head and Neck Surgery
Baker and Swanson: Local Flaps in Facial Reconstruction
Jackson T Ian: Local Flaps in Head and Neck Reconstruction
Sanna Mario and al. Middle Ear and Mastoid Microsurgery 2003.

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