

# **A. GENERAL COMPETENCIES**

**( )denotes optional competencies**

At the completion of the Pediatric Otolaryngology rotation, the student will be able to:

## **1) MEDICAL EXPERT**

- Develop an introductory knowledge in general pediatric otolaryngology including the subspecialties of head & neck surgery, rhinology, laryngology, plastic and reconstruction, and otology.
- Demonstrate the ability to take a directed history, and to perform a complete exam required in otolaryngology, and to develop a differential diagnosis.
- Differentiate between emergency, severe and minor otolaryngology conditions, and to decide which condition warrant appropriate and timely referral to an otolaryngologist
- Demonstrate the ability to evaluate and manage common ear, nose and throat problems presenting to the primary care physician
- (Demonstrate skills in basic surgical techniques such as knot-typing, suturing and limited dissection.)

## **2) COMMUNICATOR/DOCTOR-PATIENT RELATIONSHIP**

- Communicate effectively and empathetically with patients and their families.
- Demonstrate thorough and clear documentation and charting, with concise recording of pertinent positive and negative findings.
- Demonstrate the ability to present a patient case in a clear, concise and complete manner.

## **3) COLLABORATOR**

- Establish and maintain effective working relationships with colleagues and other healthcare professionals commonly treating otolaryngology patients (nursing, audiology, speech language pathology).
- (Demonstrate knowledge of community resources available to the otolaryngologist.)

## **4) MANAGER**

- Demonstrate appropriate and cost-effective use of investigations and treatments.
- Learn to set priorities and manage time efficiently
- (Develop organizational skills and efficiency in managing patients and maintaining patient flow.)
- (Develop an understanding of the factors contributing to resource issues in the otolaryngology clinic.)

## **5) HEALTH ADVOCATE/COMMUNITY RESOURCES**

- Demonstrate an awareness of the underlying psychosocial and socioeconomic problems that contribute to otolaryngologic problems.
- Identify opportunities for primary and secondary prevention strategies

## **6) SCHOLAR**

- Access and critically appraise the literature relevant to otolaryngology.
- (Understand the many unique learning and teaching opportunities available in otolaryngology.)

## **7) PROFESSIONAL**

- Recognize and accept his or her limitations and know when to ask for help.
- Be reliable and responsible in fulfilling obligations.
- Recognize situations where common medical errors may occur in the otolaryngology clinic.

# **B. EDUCATIONAL CORE OBJECTIVES**

**() denotes optional objectives**

## **1) SKILLS**

By the end of the Otolaryngology rotation, the student should be able to demonstrate basic proficiency in the following skills.

### **a) Clinical Examination Skills:**

- Complete Head and Neck examination
- Cranial nerve examination
- Otoscopy including pneumatic otoscopy (recognize and describe abnormal findings on ear examination)
- Under direct staff supervision, student may acquire skills such as:
  - Direct laryngoscopy
  - (Use a microscope to examine the ear)
  - (Removal of ear wax)

## **b) Operative Skills:**

- Closure of skin wounds
- For the following procedures, student will contribute to the preoperative preparation of patients, observe the surgery and participate in their care postoperatively.
  - Adenotonsillectomy
  - Myringotomy and Tube Insertion
  - Rigid Bronchoscopy

## **2) PROBLEM BASED**

By the end of the Otolaryngology rotation, the student should be able to demonstrate an approach (including differential diagnosis, assessment and management) to patients presenting with the following common conditions.

### **a) Ear Infections**

- Understand the pathology, presentation and management of acute otitis media (AOM), serous otitis media, and otitis externa
- Understand the common associated risk factors
- Describe the common complications associated with AOM
- Discuss the indications for myringotomy and tube insertion

### **b) Hearing Loss**

- Understand the basic principles of anatomy, physiology and pathology of the ear as related to hearing impairment.
- Understand the etiology, presentation, differential diagnosis and management of the common causes of conductive and sensorineural hearing loss
- Be familiar with the interpretation of basic audiograms (hearing test) and impedance testing
- Understand the need for early diagnosis and management of hearing loss in infants and of sudden sensorineural hearing
- Be familiar with the Universal Infant Hearing Program
- Be familiar with the devices available for rehabilitation (hearing aids/assistive devices)

### **c) Adenotonsillar Hypertrophy/ Sore Throat**

- Recognize symptoms of obstructive sleep apnea in children, and how they differ from adults.
- Describe the potential long-term complications of untreated OSA
- Understand the management of adenotonsillar hypertrophy

- Know the indications for tonsillectomy and adenoidectomy
- Conduct a physical examination to differentiate causes of throat pain
- Order appropriate investigations for evaluation of a sore throat, and know when treatment is indicated.
- Recognize potential complications of tonsillitis and deep space neck infections

#### **d) Airway Obstruction/ Aspiration / Hoarseness**

- Be able to define stridor and understand how the quality of stridor can help localize the area of obstruction
- Be able to identify signs and symptoms of impending airway obstruction
- Be able to assess a patient with stridor (history and physical examination)
- Know the differential diagnosis and basic management of common causes of stridor and / or respiratory distress in children (including laryngomalacia, subglottic stenosis, foreign body aspiration, epiglottitis and croup)
- Be familiar with appropriate airway management in acute airway obstruction (including positioning, artificial airways and tracheotomy)
- Describe the mechanisms in place that maintains and protects the lower respiratory tract
- Describe the presentation, differential and management of pediatric aspiration
- Formulate a differential diagnosis for dysphonia (hoarseness)

#### **e) Nose and Paranasal Sinuses**

- Describe the functions of the nose (airway, mucociliary system, warming and humidification), and understand the anatomy
- Demonstrate knowledge of the differential diagnosis of nasal obstruction (with and without rhinitis)
- Recognize, investigate, and treat acute sinusitis
- Be aware of the indications for referral in chronic sinusitis
- Formulate an approach to a patient with acute epistaxis

#### **f) Upper Digestive Tract**

- Outline the three phases of swallowing and demonstrate knowledge of the differential diagnosis of dysphagia
- Demonstrate a knowledge of the anatomy and physiology of the 3 major salivary glands
- Discuss the differential and management of salivary gland swelling
- Understand the basic presentation and treatment of acute sialadenitis and drooling

#### **g) Pediatric Neck Masses**

- Demonstrate knowledge of the differential diagnosis of congenital neck lesions (midline and lateral) and knowledge of the pertinent embryology.
- Discuss the investigations and management of pediatric neck masses.

## C. LEARNING RESOURCES

### 1) Recommended Reading

- Books available in the B240 Conference room:
  - Primary Care Otolaryngology. Stafferl JG et al eds.
  - EMILY method for examining the tympanic membrane in a child. Schloss MD and Katz MS eds.
- Textbook: Head and Neck Surgery – Otolaryngology. Bailey BJ and Johnson JT eds.

### 2) Online resources

- Baylor College of Medicine: <http://www.bcm.edu/oto/gr-archive>
- Otolaryngology Houston: <http://www.ghorayeb.com/pictures.html>
- Martindale's The "Virtual" Medical Centre:  
[http://www.martindalecenter.com/MedicalAudio\\_2\\_C.html](http://www.martindalecenter.com/MedicalAudio_2_C.html)
- Canadian Society of Otolaryngology – Head and Neck Surgery (link for “Undergraduate Education”): [www.entcanada.org](http://www.entcanada.org)
- University of Western Ontario: [http://www.uwoent.ca/files/Clerkship\\_Lecture.pdf](http://www.uwoent.ca/files/Clerkship_Lecture.pdf)
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