A) **Introduction**

Clinical elective students are defined as medical students spending an intensive continuous period in the Department of Otolaryngology – Head and Neck Surgery. An elective block is typically 2 to 4 weeks. It is understood that elective students have a particular interest in the specialty beyond the experience obtained during their core medical curriculum.

B) **Description**

The Otolaryngology program at the University of Western Ontario is based at three teaching hospitals in London, Ontario: London Health Sciences Centre - Victoria Hospital, University Hospital, and St. Joseph’s Health Care. UWO is the only major referral centre for Southwestern Ontario, and provides comprehensive tertiary level care in every Otolaryngology subspecialty, including:

- Head and Neck Oncology
- Head and Neck Microvascular Reconstructive Surgery
- Otology and Neuro-otology
- Pediatric Otolaryngology
- Laryngology and Professional voice
- Rhinosinology and Endoscopic skull base surgery
- Facial Plastic & Reconstructive Surgery, Facial Cosmetic Surgery, and Trauma

As well, the teaching hospitals deliver general otolaryngologic care to the city of Windsor and surrounding areas. This unique situation enables students to better appreciate the scope of the specialty.

Every attempt will be made to allow the student to critically evaluate Otolaryngology as a career choice and to objectively view the residency training program at the University of Western Ontario. As such, the student will be fully integrated into the clinical environment and will have the opportunity to be a vital part of the surgical team. Time will be spent in the operating rooms, providing inpatient care, and participating in outpatient clinics. It will be expected that students participate in the call schedule and have the opportunity to evaluate emergency patients with resident/consultant supervision.

Optional academic endeavours such as formal round presentations will be welcomed if schedules permit during the student's tenure. As well, students wishing to participate in clinical projects such as case presentations or retrospective reviews are encouraged to discuss their interest with residents and consultants.

C) **Objectives**
Otolaryngology is a surgical subspecialty with tremendous breadth and depth. Problems that affect structures of the head and neck significantly impact patients’ function and quality of life (e.g., smell, hearing, breathing, swallowing, phonation). Our patient population ranges from neonates to the elderly. Clinical problems can be life-threatening (e.g., airway obstruction), urgent (e.g., head and neck cancer), and elective (e.g., cosmetic surgery). Our surgical procedures are diverse, ranging from intricate (e.g., paediatric airway surgery), technologically and anatomically complex (e.g., endoscopic sinus surgery with 3D-image guidance), really small (operating on the smallest bones of the body in the ear), really large (head and neck cancer resection with free flap reconstruction), creative (cosmetic surgery), and most of all….rewarding.

1. Medical Expert / Decision Maker
   A. Skills
      a) Ear
         i. Otologic history taking for common otologic problems:
            • Ear discharge
            • Otalgia
            • Infant hearing loss
            • Adult hearing loss
            • Dizziness
            • Facial weakness
         ii. Removal of ear wax
         iii. Otoscopy including pneumatic otoscopy
         iv. Tuning fork tests
         v. Interpretation of basic audiogram (hearing test)
         vi. Otoneurologic examination
            • Dix-Hallpike maneuver and the Particle Repositioning Maneuver
            • Cranial nerve examination
            • Cerebellar function
      b) Nose and Paranasal Sinus
         i. History taking for common nasal problems:
            • Nasal obstruction
            • Nasal discharge
            • Facial pain
            • Anosmia
            • Epistaxis
         ii. Anterior rhinoscopy
         iii. Exposure to endoscopic examination of the full nasal cavity
         iv. Identification of normal structures within the nasal cavity
         v. Examination of the external nasal structures
         vi. General appreciation of plain films and CT scans of the nose and paranasal sinuses
      c) Oral Cavity
         i. History taking for common oral cavity problems:
            • Sore mouth
            • Drooling
            • Salivary gland problems
            • Lip lesion
B. Knowledge

a) Ear Infection
i. Demonstrate knowledge of the differential diagnosis of otorrhea and otalgia (local and referred) with an emphasis on external otitis, acute and chronic otitis media and their complications

b) Hearing Loss / Tinnitus
i. Show an understanding of the need for the early diagnosis of hearing loss in infants including the need for a high “index of suspicion” (early warning signs) and the need for early audiologic testing and habilitation. The protocol followed by the Universal Infant Hearing Program should be known to you.
ii. Describe the common causes of conductive hearing loss (external canal to the staples footplate)
iii. Develop a differential diagnosis of sensory neural hearing loss (sudden vs gradual), appreciate the need for preventative measures in the workplace (noise reduction) and the devices available for rehabilitation (hearing aids and assistive devices)
iv. Provide a working knowledge of tinnitus (subjective and objective)

c) Vertigo
i. Differentiate vestibular vertigo from other causes of imbalance vertigo
ii. Distinguish peripheral vs central vertigo
iii. Provide a DDx of vertigo with and without hearing loss
iv. Diagnose benign paroxysmal vertigo based on the history and clinical findings

d) Facial Paralysis
Differentiate peripheral vs central paralysis and show an understanding of peripheral facial paralysis from an ENT-HNS perspective (i.e., intracranial, temporal bone, extratemporal)

e) Nose and Paranasal Sinuses
   i. Describe the functions of the nose (airway, mucociliary system, warming and humidification)
   ii. Demonstrate knowledge of the DDx of nasal obstruction with and without rhinitis
   iii. Recognize, investigate, and treat acute sinusitis
   iv. Formulate an approach to a patient with acute epistaxis (anterior and posterior)

f) Pharynx
   i. Demonstrate an understanding of obstructive sleep apnea. Who is at risk? What are the symptoms and long term complications?
   ii. Describe the mechanisms that are in place that allow one to maintain and protect the lower respiratory tract (i.e., DDx of aspiration)
   iii. Describe the signs and symptoms that might arise due to the presence of an infection/mass lesion (structural abnormality or loss of function, e.g., carcinoma of the tongue base) in this area (i.e., the effect on swallowing, breathing, phonation, pain, foreign body sensation, odynophagia, referred otalgia)

g) Larynx and Upper Airway
   i. Describe the supraglottic region and understand that it extends up into the pharyngeal airway and thus pathology in this region presents in a way similar to other pharyngeal airway pathologies
   ii. Formulate a DDx for dysphonia (hoarseness)
   iii. Demonstrate knowledge of the different types of stridor that present from the different sites of the upper airway
   iv. Describe the acute management of upper airway obstruction using positioning, artificial airways, and tracheotomy

h) Oral Cavity and Pharynx
   i. Outline the three phases of swallowing with emphasis on the oro-pharyngeal phases for ENT purposes
   ii. Demonstrate a basic knowledge of dental abnormalities as they might be included as the primary cause of oral symptoms and signs
   iii. Have knowledge of the DDx of mucosal lesions in the oral cavity
   iv. Demonstrate knowledge of the differential diagnosis of dysphagia
   v. Show an understanding of the lymphatic drainage of the oropharynx as a route of metastatic spread

i) Salivary Glands
   i. Demonstrate knowledge of the anatomy of the three major salivary glands
   ii. Discuss the DDx of salivary gland swelling (single gland, multiple glands)

j) Congenital Masses
   i. The DDx of congenital lesions found in the neck (midline and lateral), and have knowledge of the pertinent embryology

k) Lymphatics
   i. The anatomy (nomenclature) of the regional lymph nodes
   ii. The importance of the regional lymphatic drainage and its relevance in the DDx of primary lymph node pathology
   iii. Other pathologic entities that might occupy a lymph node
   iv. The importance of a thorough head and neck functional inquiry in investigating a possible metastatic neck mass from a primary in the upper aerodigestive tract (the functional inquiry often leads to the primary site of pathology)
v. Risk factors in developing H&N cancer malignancies
vi. General principles in the treatment of H&N squamous cell malignancies and the multidisciplinary nature of H&N cancer treatment
vii. Quality of life issues inherent in choosing or not choosing different treatment modalities

l) Thyroid Viscera
   i. The anatomy of the thyroid gland
   ii. DDx of a thyroid mass (functional vs neoplastic) for ENT emphasis on neoplastic thyroid abnormalities

2. Communicator/Educator/Humanist/Healer
   a) Conduct patient-centered interviews that explore the patient's feelings, ideas, impact on function, and expectations.
   b) Develop relationships with patients characterized by compassion, empathy, respect, and genuineness, demonstrating a willingness to collaborate with the patient about management.
   c) Perform a physical examination without causing the patient embarrassment.
   d) Adapt treatment plans to the individual with consideration for the patient's age, general health, special needs, expectations, cultural background, progress, or changes in condition.
   e) Demonstrate skill in communication of information with clear, concise explanations that are understandable to patients.
   f) Recognize risk factors and be able to counsel patients on risk reduction.

3. Health Advocate
   a) Identify the rights and legal responsibilities of physicians to patients and the community.
   b) Describe the determinants of health and apply them appropriately to enhance individual and community well being.
   c) Apply the concept of cost-effectiveness to public health interventions.

4. Learner/Scholar
   a) Demonstrate skill in self-directed learning by:
      i. Ability to identify areas of deficiency in one's own knowledge and skills.
      ii. Ability to find appropriate educational resources.
      iii. Ability to evaluate personal learning progress.
      iv. Ability to use new knowledge in the care of patients.
   b) Determine the validity and applicability of published data through critical appraisal.

5. Professional/Collaborator/Person
   a) Demonstrate the ability to work effectively as a member of a team, as participant or leader.
   b) Collaborate effectively with patients and families without having to take charge.
   c) Demonstrate skill in finding common ground when differences of opinion exist.
   d) Establish effective relationships with colleagues and other member of the health care team by:
      i. Considering their suggestions and criticisms.
      ii. Tactful handling of differences of opinion.
   e) Demonstrate the ability to place the needs of patients and families first.
   f) Demonstrate honesty and trustworthiness in assessment, study and learning.
   g) Demonstrate responsibility and respect.
   h) Recognize personal biases and ensure that they do not interfere with the patient's best interests.
   i) Be willing to seek help, advice or consultation when needed.
   j) Respond to personal and family needs and develop effective support systems.
6. **Resource Manager/Gatekeeper/Steward**
   a) Assist patients in accessing the health care system for physical, psychological, social, and economic rehabilitation or long-term care.
   b) Use the concepts of evidence-based medicine to guide patient care decisions.
   c) Identify potential conflict between individual and population interests and seek advice from others.

7. **Scientist**
   a) Assess the effectiveness of practice and engage in continuous quality improvement.

**D) Evaluation**

During the student’s elective period, the consultants and residents with whom the student has spent time will complete evaluations. All evaluations are reviewed and compiled by the Undergraduate Director and a report is made available to the student at the end of the rotation on One45.

An outgoing interview will take place with the ENT On-site Chief of the hospital in which the student spends his last week of elective in order to answer further questions the student may have, and to provide the student with an overall assessment from the department.

E) **Type of Clinical Experience**
   In patient ( )
   Out Patient ( )
   Both (x)

F) **Night and Weekend Call**
   Yes (x)

G) **Evaluation Procedure**
   Written Exam ( )
   Oral Exam ( )
   Informal Clin. Eval. (x)

**Note:** Registration is NOT through the lottery.