

OTOLARYNGOLOGY IV: RESIDENCY BENCHMARK
EDUCATIONAL GOALS AND OBJECTIVES
LARYNGOLOGY AND CARE OF THE PROFESSIONAL VOICE- PGY4 Resident

I. Medical Knowledge

1. Laryngeal physiology and anatomy
2. Specialized history evaluation of singers
3. Evaluation and decision making of a patient with an immobile vocal fold
4. Principles and indications of behavioral management of patients with voice disorders
5. Identification and treatment of patients with paradoxical vocal fold motion disorder
6. Method of multi-disciplinary evaluation and care of voice disorders
7. Identification and treatment of laryngeal dystonias

II. Patient Skills

1. Dynamic voice assessment using flexible laryngoscopy
2. Rigid, per-oral laryngoscopy with stroboscopy
3. Interpretation of laryngovideostroboscopy
4. Phonosurgery
5. Medialization laryngoplasty
6. Index Case
 - a. Microlaryngeal surgery
 - b. Videostroboscopy
 - c. Medialization laryngoplasty

III. Practice Based Learning

- a. Interact with a variety of health care providers.
- b. Interact with family practice residents.
- c. Ability to impart knowledge to family practice residents in a professional, soothing manner.
- d. Ability to serve as consultant in a community hospital.
- e. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with head and neck diagnoses and the scientific evidence for that care.
- f. Routinely analyze the effectiveness of own practices in caring for patients.

IV. Communication

- a. Effective communication with members of community health care team.
- b. Willingly and actively teach medical students, as well as laryngology students.
- c. Formulate working diagnoses on inpatient and outpatient consults.
- d. Relate to patients and families and to provide both adequate objective information as well as emotional support.

- e. The ability to work with the operating room staff, as well as residents from other surgical specialties rotating at UPMC St. Margaret.

V. System Based Practice

- a. Be able to coordinate the medical treatment of patients with a variety of laryngological problems.
- b. To recognize the value of and function within a team approach to treat patients with laryngological problems.

VI. Professionalism

- a. Develop an understanding of the stressors of the families and patients undergoing surgical procedures.
- b. Exhibit a regard for the welfare of the laryngological patient.
- c. Demonstrate firm adherence to a code of moral and ethical values.

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS AT UPMC ST. MARGARET
EDUCATIONAL GOALS AND OBJECTIVES- PGY3 Resident

- I. Medical Knowledge
 - a. List otolaryngologic manifestations of systemic diseases.
 - b. Describe the anatomy of the paranasal sinuses, the extratemporal facial nerve, and the larynx.
 - c. Identify the staging system for head, neck and temporal bone cancers.
 - d. List definitions and parameters for evaluating obstructive sleep apnea and sinusitis.
 - e. Acquiring the ability to follow a diagnostic algorithm for otologic complaints, sinusitis, nasal obstruction, head and neck mass, dysphagia and hoarseness.

- II. Patient Care
 - a. Appropriate examination skills:
 - 1. Thorough head and neck physical examination.
 - 2. Nasal endoscopy.
 - 3. Flexible fiberoptic laryngoscopy.
 - 4. Comprehensive otolaryngologic bedside evaluation.
 - 5. Mirror examination.
 - 6. FEES examination.
 - b. Data Interpretation:
 - 1. CT scans of the neck, axial and coronal CT scans of the sinuses, CT scan interpretation of the temporal bone.
 - 2. Evaluation of barium esophagogram.
 - 3. Ability to evaluate modified barium swallows.
 - 4. Ability to interpret diagnostic studies such as audiograms.
 - 5. Ability to interpret FEES.
 - c. Surgical Skills:
 - 1. Modified radical and selective neck dissection, laryngectomy, partial laryngeal surgery, excision of head and neck tumors, microlaryngoscopy, and diagnostic laryngoscopy and esophagoscopy.
 - 2. Ability to perform tracheostomy.
 - 3. Ability to perform parotidectomy.

- III. Practice Based Learning
 - a. Interaction with a variety of health care providers.
 - b. Interact with family practice residents.
 - c. Ability to impart knowledge to family practice residents in a professional, soothing manner.
 - d. Ability to serve as consultant in a community hospital.

- e. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with head and neck diagnoses and the scientific evidence for that care.
- f. Routinely analyzes the effectiveness of own practices in caring for patients.

IV. Communication

- a. Effective communication with members of community health care team.
- b. Willingly and actively teach medical students, as well as family practice residents.
- c. The ability to formulate working diagnoses on inpatient and outpatient consults.
- d. The ability to relate to patients and families and to provide both adequate objective information as well as emotional support.
- e. The ability to work with the operating room staff, as well as residents from other surgical specialties rotating at UPMC St. Margaret.

V. System Based Practice

- a. Be able to coordinate the medical treatment of patients with a variety of otolaryngologic problems with various other subspecialists such as gastroenterology, otology, general surgery, oral maxillofacial surgery, or neurology.
- b. Recognize the value of and function within a team approach to treat patients with otolaryngologic problems.

VI. Professionalism

- a. Develop knowledge of the stressors of the families and patients undergoing surgical procedures.
- b. Exhibit a regard for the welfare of the general otolaryngology patient.
- c. Demonstrate firm adherence to a code of moral and ethical values.

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
SHADYSIDE ROTATION – PGY4 RESIDENT

I. Medical Knowledge:

Preoperative evaluation:

The resident should recognize the essential components and the evaluation of the following entities:

1. Acute facial paralysis
2. Chronic facial paralysis
3. Acute sinusitis with or without complications
4. Chronic sinusitis
5. Primary and secondary rhinoplasty
6. Cosmetic deformities of the face
7. Cutaneous malignancies
8. Salivary gland inflammatory disease

The resident should know:

1. Anatomy of the facial nerve
 - a. Anatomy of the facial nerve and muscles: central, temporal bone, extratemporal
 - b. Radiology of facial nerve normal and in pathology
 - c. Pathophysiology of facial paralysis
 - d. Common electrical tests of facial paralysis MST, EMG, ENOG (EEMG)
 - e. Treatment of acute facial paralysis
 - f. Facial reanimation approach to patients with various deficits eye reanimation
 - g. Reconstruction of soft tissue defects with “plastic” technique using local facial flaps
 - h. Basics of MOH’s histographic surgery
2. Nasal physiology, anatomy, and radiology
 - a. Embryology and anatomy of the paranasal sinuses: uncinata, bulla, posterior ethmoid, phenoid, agger nasi, frontal, maxillary, turbinates, osteomeatal complex, nasal lacrimal system
 - b. Interpretation of sinus radiographs
 - c. Office evaluation of nasal sinus disorders
 - d. Medical management of sinusitis pathophysiology
 - e. Surgical principles of endoscopic sinus surgery avoidance and management of complications of ESS
 - f. Management of epistaxis
 - g. Anatomy of the aging face

II. Patient Care

A. Surgical treatment options:

1. Acquired and congenital facial deformities
2. Aging face
3. Facial and eye reanimation
4. Endoscopic Sinus Surgery (ESS)
5. Rhinoplasty
6. Parotidectomy
7. Salivary Endoscopy

B. Postoperative care:

1. Facial Reanimation
2. Rhinoplasty

3. Endoscopic sinus surgery
- C. Identification and management of surgical complications:
1. Wound infection
 2. Airway compromise
 3. Orbital complications of ESS
 4. CNS complications of ESS
 5. Facial paralysis after rhytidectomy
- D. Skills
1. Physical examination for facial paralysis patient
 2. Anterior rhinoscopy
 3. Nasal endoscopy
 4. Analysis of eye for reanimation, age related changes, orbital complications
 5. Analysis of lower face for reanimation and age related change
 - a. Gold weight and Bick procedure
 - b. Parotidectomy with facial nerve dissection
 6. Proper planning for cosmetic surgery patients
- E. Index Cases:
1. Minimally invasive endoscopic sinus surgery
 2. Facial nerve identification
 3. Nasal Septal reconstruction
 4. Turbinate reduction
 5. Functional Rhinoplasty
 6. Basic Salivary Endoscopy

III. Practice Based Learning and Improvement

1. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with head and neck diagnoses and the scientific evidence for that care.
2. Routinely analyzes the effectiveness of own practices in caring for patients.
3. Improve own practices in the care of patients by integrating appropriately gathered data and feedback
4. Educate medical students and other healthcare professional in the practices of head and neck surgery
5. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with head and neck diagnoses.
6. Participate in, and appreciate the value of outcome studies as they apply to diagnosis of the head and neck

IV. Interpersonal and Communication Skills

1. Educate patients and families in pre- and post- operative care of patients.
2. Demonstrate compassion for patients and families
3. Provide adequate counseling and informed consent to patients
4. Listen to patients and their families

V. System -Base Practice

1. Be able to coordinate the medical treatment of patients with a variety of otolaryngologic problems with various other subspecialties such as gastroenterology, otology, general surgery , oral maxillofacial surgery, or neurology
2. Recognize the value of and function within a team approach to treat patients with otolaryngologic problems
3. Advocate for patients within the health care and insurance system
4. Facilitate the timely discharge of patients

F. Professionalism

1. Develop a sensitivity of the unique stress placed on families
2. Exhibit an unselfish regard for the welfare of patients
3. Demonstrate firm adherence to a code of moral and ethical values
4. Be respectful to patients and their families especially in times of trauma and stress to the family unit
5. Provide appropriately prompt consultations when requested
6. Demonstrate sensitivity to the individual patient's profession, life goals, and cultural background as they apply to head and neck diagnoses of trauma, malignancy, and congenital anomalies
7. Be reliable, punctual, and accountable for own actions in the OR and clinic

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
OTOLOGY – PGY5 RESIDENT

I Medical Knowledge

1. Review and recognize the information base required of first year otology residents.
2. Know anatomy of the temporal bone through reading, Otology's lectures and hands-on experience in the temporal bone laboratory.
3. Recognize the anatomy of the eustachian tube and sequela from dysfunction.
4. Identify critical structures and the interpret MRI and CT images of the skull base and temporal bone.
5. Through appropriate history taking and physical diagnosis be able to develop a detailed differential diagnosis for otologic and neurotologic complaints. Propose a reasonable treatment plan for patients complaining of hearing loss, tinnitus or dizziness.
6. Be knowledgeable regarding appropriate hearing aid amplification and different amplification devices available (analog, digital, CROS, BICROS).
7. Be able to interpret standard vestibular testing (ENG, Rotational Chair) as well as ECoG, ENOG, otoacoustic emissions, and facial EMG results.
8. Be a resource for the first year resident regarding educational opportunities within the division of otology including audiology, vestibular lab, temporal bone lab, and otopathology lectures.

II Patient Care and Skills

1. Be competent in identifying a normal tympanic membrane and common pathology including otitis externa, serous otitis media, tympanic membrane perforation and cholesteatoma.
2. Recognize the use and interpretation of tuning fork testing.
3. Perform a Dix-Hallpike test and a particle-repositioning maneuver.
4. Be competent in recognizing common and subtle pathologic changes of the EAC, tympanic membrane and middle ear.
5. Formulate a treatment plan for patients with various degrees of conductive, sensorineural and mixed hearing loss.
6. Provide a differential diagnosis and treatment plan for patients complaining of dizziness.
7. Provide a differential diagnosis and treatment plan for patients presenting with facial palsy.
8. Have basic surgical skills for the following procedures:
 - a. Use of operating microscope
 - b. Removal of cerumen impaction and mastoid cavity debridement
 - c. Placement of myringotomy tubes in patients in the clinic
 - d. Tympanomeatal flap elevation for transcanal procedures
 - e. Facial recess approach
 - f. Canal wall down mastoidectomy
 - g. Tympanoplasty (medial and lateral technique)
 - h. Labyrinthectomy
 - i. Middle ear ossiculoplasty
 - j. Use of lasers in otologic surgery
9. Recognize and deliver appropriate postoperative care for common otologic/neurotologic procedures including stapedectomy, tympanoplasty/tympanomastoidectomy, and

acoustic tumor surgery.

10. Be able to identify and provide a reasonable management plan for cerebrospinal fluid leaks.
11. Provide appropriate history, physical examination, assessment and plan documentation in the electronic medical record.

III. Practice Based Learning and Improvement

1. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with otology diagnoses and the scientific evidence for that care.
2. Routinely analyzes the effectiveness of own practices in caring for otology patients.
3. Improve own practices in the care of otologic patients by integrating appropriately gathered data and feedback.
4. Educate medical students and other healthcare professional in the practices of Otology.
5. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with Otologic diagnoses.
6. Participate in, and appreciate the value of outcome studies as they apply to diagnoses of Neurotology.

IV. Interpersonal and Communication Skills

1. Educate patients and families in pre- and post-operative care of patients.
2. Provide adequate counseling and informed consent to patients.
3. Listen to patients and their families.
Assimilate data and information provided by other members of the health care team, in the care of patients with PGYII.
7. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with head and neck diagnoses and the scientific evidence for that care.
8. Routinely analyzes the effectiveness of own practices in caring for head and neck patients.
9. Improve own practices in the care of head and neck patients by integrating appropriately gathered data and feedback.
10. Educate medical students and other healthcare professional in the practices of head and neck surgery.
11. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with head and neck diagnoses.
12. Participate in, and appreciate the value of outcome studies as they apply to diagnoses of the head and neck.

V. System Based Practice

1. Be able to coordinate the nonsurgical treatment of patients with congenital anomalies.
2. Participates in multidisciplinary planning and treatment for patients with hearing and balance issues.
3. Coordinate all aspects of auditory rehabilitation.

4. Demonstrate knowledge of cost-effective hearing protection..
5. Refer hearing impaired patients to the appropriate practitioners and agencies.
6. Facilitate the timely discharge of Otolaryngology patients.
7. Function within the organization of specialty clinics (Cleft Palate Center, Craniofacial Clinic) including the coordination of all special services in the evaluation of children with these anomalies.
8. Be able to coordinate the nonsurgical treatment of patients with congenital anomalies among contributing specialties (prosthetics, orthodontics, speech therapy).
9. Recognize the value of and function within a team approach to treat patients with head and neck malignancies
10. Participate in tumor-board conference.
11. Participates in multidisciplinary planning and treatment for patients with head and neck malignancies.
12. Coordinate all aspects of head and neck rehabilitation, including physical therapy, sensory reeducation, and maxillofacial prosthetics.
13. Direct the rehabilitation of head and neck patients by partnering with the following:
 - a. physical therapy
 - b. occupational therapy
 - c. prosthetic and orthotics specialists
 - d. ENT cancer services
 - e. Speech and swallow specialists.

14. Demonstrate knowledge of cost-effective head and neck reconstruction.
15. Advocate for congenital craniofacial patients within the health care and insurance system.
16. Recognize the benefits and functionality of multidisciplinary craniofacial teams.
17. Refer craniofacial patients to the appropriate practitioners and agencies.
18. Appreciate the functioning of the multispecialty fetal diagnosis and treatment committees and the potential role prenatal diagnosis plays in the family unit.
19. Facilitate the timely discharge of head and neck patients.
20. Partner with pediatricians in the combined care of infants undergoing systemic steroid therapy for head and neck hemangiomas.

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
RESEARCH- PGY 2, 3 and 4 RESIDENT

I. Medical Knowledge

1. The research project identified and developed should build on relevant medical knowledge of otolaryngology (basic or clinical).
2. The research mentor should demonstrate expertise in the defined area of research.
3. The research mentor should have a successful track record of mentoring trainees, with an emphasis on prior successful mentoring of otolaryngology residents.
4. The trainee should develop research questions to be addressed during the rotation.
5. The trainee should generate a proposal to study the topic chosen (ideally, a NIH-style grant proposal).
6. The trainee should take and pass the web-based research training modules at the University of Pittsburgh.
7. The trainee should demonstrate the ability to initiate and complete a research project.
8. The trainee should recognize the importance of the literature review, be familiar with internet-based search engines and on line retrieval of relevant manuscripts.
9. The trainee should learn to prepare a research report/manuscript including familiarity with reference manager programs to readily incorporate the referenced sources.

II. Patient Care

1. If the research is clinical in nature, then the trainee is expected to become familiar with good clinical research practices including regulatory guidelines, criteria for informed consent, and the role of the IRB.
2. Trainees who participate in clinical research should be properly trained and ideally designated as co-investigators on the protocol materials.
3. All research projects involving patients and/or patient-related materials must have IRB approval or approved exemption.
4. Recording and reporting of patient data must observe guidelines set forth to protect patient confidentiality.

III. Professionalism:

1. The resident must be appropriately instructed if charged with obtaining informed consent from study subjects.
2. The resident must be appropriately trained to perform study-related procedures.
3. The resident should demonstrate respect and compassion for all study patients with special attention to sensitivity to patients' age, gender, culture, and disabilities.

IV. Interpersonal and Communication Skills:

1. Work towards a constructive relationship with patients and staff.
2. Elicit the help of senior co-investigators, the PI and/or mentor if any questions or concerns arise.

V. Practice-Based Learning and Environment:

1. Applies knowledge of study design and statistical methods to evaluate studies.
2. Uses informatics technology appropriately with care taken to respecting patient confidentiality.
3. Incorporate knowledge from online research modules.

VI. Systems-Based Practice:

1. Recognize how some research may be translated to improved patient care.
2. List cost of biomedical research and sources of funding.
3. Understand how outcomes based research affects medical costs
4. Understand interaction of patient research and medical insurance

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
HEAD AND NECK PGY4 and PGY 5 RESIDENT

I. Medical Knowledge

1. Employs and interprets modern imaging to facilitate investigation of head and neck tumors.
2. Employs appropriate use of antimicrobial therapy in both the prophylactic and therapeutic setting.
3. Recognizes the indications for radiation therapy in both the primary and adjuvant setting.
4. Indicates the uses of chemotherapy for primary and adjuvant therapy.
5. Comprehends the staging classification system.
6. Recognizes anesthesia and airway management as it pertains to patients with cancer of the head and neck.
7. Recognizes laser safety and basic laser surgery principles.
8. Recognizes perioperative management principles as it pertains to patients with cancer of the head and neck.
9. Has a thorough knowledge of the head and neck anatomy including the surgical zones of the neck.
10. Lists thyroid neoplasms and is able to propose appropriate treatment.
11. Lists the various cutaneous malignancies and is able to propose appropriate treatment.
12. Lists the various types of salivary gland neoplasms and is able to discuss appropriate treatment.
13. Familiar with the identification and care of surgical complications.
14. Recognizes the long term consequences of surgery and irradiation and is able to help the patient to accommodate to these.
15. Knows the anatomy and utility of the various reconstructive alternatives such as skin grafts, local, regional and free-flaps.
16. Describes the role and utility of conservation laryngeal surgery.
17. Lists the various congenital cysts in sinuses of the head and neck. Knows the surgical approaches for each.
18. Lists the options for the reconstruction of the cervical esophagus and hypopharynx.

II. Patient Care

1. Index Cases: The PGY4 should learn the following skills. The PGY5 should perfect the skills and teach them to the junior residents:
 - a. Lateral rhinotomy approach
 - b. Complete and partial maxillectomy
 - c. Wide local excision of aerodigestive tract mucosal lesions
 - d. Split thickness skin graft reconstruction
 - e. Pectoralis myocutaneous regional flap reconstruction
 - f. Marginal and segmental mandibulectomy

- g. Partial laryngectomy surgical procedures (less than total laryngectomy)
- h. Total laryngectomy, laryngopharyngectomy and laryngopharyngoesophagectomy
- i. All forms of elective and therapeutic neck dissections
- j. Thyroidectomy
- k. Parotidectomy and other salivary gland procedures
- l. Reconstruction of cutaneous surgical defects
- m. Management of the difficult airway
- n. Transoral endoscopic laser excision techniques
- o. Bicoronal incision and orbito-zygomatic osteotomy

III. Professionalism

1. Demonstrate respect for patients, family members and members of the healthcare team
2. Demonstrate “ownership” of patients by consistently reassessing diagnoses and treatment strategies
3. Know all pertinent patient-specific data for active patients
4. Respond rapidly to pages and messages, Follow-up on lab data, pathology, and radiology reports without reminders

IV. Interpersonal and Communication Skills

1. Educate patients and families in pre- and post-operative care
2. Demonstrate compassion for patients and families with of the head and neck cancer.
3. Provide adequate counseling and informed consent to patients.
4. Listen to patients and their families.
5. Assimilate data and information provided by other members of the health care team, in the care of patients
6. Assimilate date and information provided by the head and neck team and tumor board in the care of patients with head and neck cancer.

V. Practice-Based Learning

1. Continuously reappraise treatment algorithms
2. Critically assesses surgical outcomes
3. Know current evidence for practice

VI. Systems-Based Practice

1. Learn computer medical record to include data review and order entry.
2. Expediently complete administrative requirements such as dictation of operative reports, discharge summaries and progress notes. Completion of all documentation to include histories and physicals, progress notes, path requests, and computerized medical record components.

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
FACIAL PLASTICS AND RECONSTRUCTIVE SURGERY- PGY 5 RESIDENT

I. Medical Knowledge

1. Know etiology of skin malignancies
2. Recognize histologic progression of malignancies of the skin
3. Know diagnostic criteria for skin malignancies
4. Recognize staging system for skin malignancies
5. Describe steps in excision and MOHS pathologic preparation of the surgical specimen
6. Describe principles of wound management following excision of skin malignancies
7. Describe common local flaps utilized in skin excision
8. Describe use of skin grafts in wound closure
9. Describe principles in post-operative management of skin flaps
10. Know scientific basis of changes occurring in aging skin
11. Know underlying scientific basis, therapeutic choices, and techniques of chemical peel
12. Know instrumentation and techniques of Rhinology

II. Patient Care Skills

1. Be able to describe skin lesions of the head and neck
2. Be able to list differential diagnosis for common skin disorders
3. Be able to select appropriate management strategy for skin malignancies
4. Be able to perform surgical excision of skin malignancies
5. Be able to accurately register pathologic diagram with surgical specimen
6. Be able to accurately prepare, section, and examine surgical specimen
7. Be able to accurately draw map of surgical specimen
8. Be able to register re-excisions accurately with surgical map
9. Be able to select optimal wound management scheme for commonly encountered defects
10. Be able to perform common local flap closure techniques including:
 - a. Advancement
 - b. W-plasty
 - c. Z-Plasty and multiple Z-plasty
 - d. Broken-line closure
 - e. V-Y closure
 - f. Pedicled rotation flaps
 - g. Bilobed rotation flaps
11. Be able to describe histologic changes present in aging skin
12. Be able to draw the relaxed skin tension lines on representative facial illustration
13. Be able to identify aesthetic units and the association of these units with planned procedure.

14. Be able to select appropriate intervention for common facial skin abnormalities and defects
15. Be able to describe techniques of cervical liposuction
16. Be able to describe the details of common facial surgical reconstructive procedures to include:
 - a. Face lift/Brow lift
 - b. Blephoroplasty
 - c. Skin peel and dermabrasion
17. To complement previous Rhinoplasty skills obtained a VA and Shadyside rotations
18. B able to describe the details of common facial surgical reconstructive/connective procedures t include:
 - a. Face lift
 - b. Brow lift
 - c. Blepharoplasties (upper and lower)
 - d. Dermabrasion
 - e. Rhinoplasties
 - f. Fat injections to face
 - g. Chin implants
19. Be able to perform facial dermabrasion safely
20. Be able to manage post-operative patients following facial reconstructive surgery
21. Be able to communicate care options, recommendations, risks and benefits, as well as discuss outcomes with patients and families accurately and compassionately.

III. Practice -Based Learning

1. To review, analyze and utilize scientific evidence from the dermatologic literature in the management of dermatologic and plastic surgery patients.
2. To learn from dermatologic patient the most effective therpeutic modalities.
3. To practice standard clinic operating procedure and the best practice patterns to facilitate care of the patient with skin cancer.

IV. Interpersonal and Communication Skill

1. To communicate effectively with staff, peers, attending dermatologists, referring physicians and consultants.
2. To listen patiently and attentively to patient history and concerns.
3. To effectively discuss with the patient and/or family: diagnosis, treatment plans including side effects, and answer questions from the patient and/or family.

V. System- Based Practice

1. To practice proper documentation

2. To practice cost-effective care
3. To implement patient care taking into consideration patient/outside resources
4. To be active in the standard operating procedures and quality improvement initiatives with the clinic

VI. Professionalism

1. To perform all expected professional responsibilities
2. To practice ethical principles in relation to patient care and confidentiality
3. To be sensitive to cultural, age, gender and disability issues.

Goals and Objectives
Otolaryngology Residents
Pediatric Otolaryngology Rotation – PGY2 Resident

The PGY2 (second year) otolaryngology residents spend their 10-12 weeks at Children's Hospital of Pittsburgh.

A. Medical Knowledge

Goal:

Otolaryngology resident will develop basic knowledge of established and evolving biomedical, clinical, and surgical principles and techniques, as well as the application of this knowledge as it relates to the care of infants and children with common diseases, illnesses and anomalies in the field of pediatric otolaryngology.

A.1. Medical Knowledge

1. Air and Food Passages

Goal: The resident will demonstrate knowledge of the relevant anatomy and physiology of the aerodigestive tract. The resident will be facile with the diagnosis and treatment of common pathology of the aerodigestive tract.

Competencies and Objectives:

1. Describe the embryology of the aerodigestive tract.
2. Describe the physiology of respiration and the multiple functions of the respiratory mucosa.
3. Explain the technique, including the role of anesthesia, for the removal of an esophageal foreign body.
4. Describe common infectious etiologies that, if untreated, may cause airway obstruction. Detail the management of airway obstruction secondary to infectious causes.
5. Describe types and severity of stridor and likely diagnoses.
6. Describe the importance of retractions and other symptoms and signs of respiratory distress.
7. Outline the indications for assisting the patient with the respiratory distress, the management options and decision making in management of respiratory distress.
8. Describe the technique for masking and ventilation.
9. Describe the types and appropriate size of endotracheal tube and the positioning and technique for intubation.

10. Describe the sizes of the bronchoscopes and esophagoscopes and method for selecting the appropriate size.
11. Outline the indications for pediatric tracheotomy and describe the differences in surgical techniques and postoperative management and follow up between a tracheotomy in an adult and a child.
12. Describe the types and sizes of tracheostomy tubes, and the method for selecting the appropriate size.
13. Describe the management of acute, recurrent and chronic tonsillitis. What is the microbiology of acute tonsillitis; of chronic tonsillitis?
14. Describe assessment and management of adenoid hypertrophy, and/or tonsillar hypertrophy.
15. Describe types of sleep disordered breathing, and methods of assessment of sleep apnea.
16. Describe indications for adenotonsillectomy.
17. Describe the anatomy of the tonsils including the blood supply. Outline the steps for a tonsillectomy.
18. Describe the potential complications of tonsillectomy (including post-tonsillectomy hemorrhage, post-obstructive pulmonary edema, postoperative pneumonia, etc.) and how they should be managed.
19. Recite normal palatal anatomy and function.

II. Otolgic Disease: Otitis Media and Cholesteatoma

Goal: The resident will understand the pathophysiology of otitis media and cholesteatoma and be able to diagnose the complications of otitis media.

Competencies and Objectives:

1. Discuss the embryology of the external, middle, and inner ear. How does this relate to the branchial apparatus?
2. Describe the anatomy of the external ear, including the pinna, concha, and external canal.
3. Describe the management of otitis externa; malignant otitis externa.
4. Describe the normal anatomy of the tympanic membrane as seen on otoscopy.
5. Describe temporal bone anatomy with special emphasis on components and relationships relevant to the middle ear and mastoid surgery.
6. Describe the pathophysiology of otitis media and risk factors in infants and young children.
7. Describe the anatomy and physiology of the Eustachian tube.
8. List the common pathogens in acute otitis media and their treatment; in chronic otitis media with effusion and their treatment.
9. Describe the risk factors for chronic otitis media.
10. Describe the clinical presentation of a child with cholesteatoma.

11. Understand the indications for tympanocentesis, myringotomy, and ventilation tube placement.
12. Explain the management of otorrhea.
13. Explain the treatment protocol for a child with recurrent or chronic otorrhea.

III. Otologic Disease: Hearing Loss and Vestibular Disease

Goal: The resident will understand the diagnosis and evaluation of a child with hearing loss, both sensorineural and conductive, and will understand the common causes and basic assessment of the vertigo.

Competencies and Objectives:

1. Describe a normal tympanogram. Describe a tympanogram for an ear with negative middle ear pressure; and one for an ear with a middle ear effusion.
2. Reproduce a normal audiogram, with masking if necessary. Distinguish between an audiogram showing conductive hearing loss and sensorineural hearing loss.
3. Describe the battery of tests available to an audiologist to test the hearing of neonates, infants, young children, and older children.

IV. Otologic Disease: Ear and Temporal Bone Trauma/Facial Nerve Injury

Goal: The resident will understand the mechanism and force of injury that causes a fracture of the temporal bone and be able to assess temporal bone fracture and associated hearing loss or facial nerve weakness.

Competencies and Objectives:

1. Describe the anatomy of the external ear, including the pinna, concha, and external auditory canal.
2. Understand the anatomy of the temporal bone.

V. Nose, Nasopharynx, and Paranasal Sinuses

Goal: The resident will understand the anatomy and physiology of the nose, nasopharynx and paranasal sinuses and recognize indications for treatment of sinusitis.

Competencies and Objectives:

1. Explain the relevant anatomy of the paranasal sinuses with attention to the osteomeatal complex.
2. Describe the physiology of nasal mucosa and the symptoms of allergic rhinitis that cause nasal mucosal pathology. Describe the mechanism through which allergic rhinitis predisposes a patient to chronic sinusitis.
3. Describe assessment and management of sinusitis

4. Elucidate the difference between acute, subacute, and chronic sinusitis and how each is treated.
5. Describe the indications for maxillary sinus tap and irrigation.
6. Describe the signs and symptoms of adenoid hypertrophy and how it relates to sinus disease.
7. Outline the indications for adenoidectomy.
8. Describe the blood supply to the nose and paranasal sinuses.
9. Understand the etiology and pathophysiology of epistaxis and the sequence of maneuvers to stop the episode of epistaxis in the healthy pediatric patient

VI. Head and Neck Anomalies

Goal: The resident will learn the anatomy of the neck and learn to examine the neck manage common simple pediatric neck masses, infections, and trauma.

Competencies and Objectives:

1. Describe the embryology of the neck including the branchial clefts, pouches, and arches.
2. Draw the major arteries, veins, and nerves of the neck.
3. Describe the pathophysiology of a thyroglossal duct cyst as well as the procedure for its complete excision.
4. Describe the location and course of the two types of first branchial cleft cysts. How should they be excised?
5. Describe the inflammatory and infectious masses of the head and neck.
6. Describe the microbiology and proper antibiotic choices for a deep neck abscess.
7. Identify a deep neck abscess on CT scan.
8. Describe the surgical approach to a peritonsillar abscess; to a retropharyngeal abscess; to a parapharyngeal abscess.

VII. Other Pediatric Problems

Goal: The resident will learn to treat each patient individually and to investigate their anomalies to employ appropriate therapy.

Competencies and Objectives:

1. Understand the complications of prematurity as they relate to otolaryngology
2. Describe relevant craniofacial anomalies, syndromes, sequences, and associations.
3. Discriminate patients who are at higher risk of undergoing anesthesia for any reason.

4. Understand the unique role of the pediatric otolaryngologist in the treatment of children with communicative disorders.

B. Patient Care

Goal:

Otolaryngology resident will develop a satisfactory level of diagnostic competence and the ability to provide and effective consultation in the context of pediatric otolaryngology services.

Competencies and *Objectives:*

1. Learn to obtain a complete and accurate history from patients and parents.
2. Demonstrate appropriate physical exam skills of infants and children.
3. Display respect and empathy toward every patient and parent, including sensitivity to cultural issues.
4. Communicate effectively with patients and their parents.
5. Formulate differential diagnosis and treatment plan for every patient based on all available information.
6. Clearly communicate with each patient and their parents the risks and benefits of treatment options for his/her condition.
7. Use information technology to assist in the management of patients.
8. Use social services in the community to assist in the care of patients.
9. Involve consultants to assist in patient care as needed.
10. Look for problems with patient safety, and examine methods to improve it.
11. Demonstrate skills in cleaning the external ear canal.
12. Demonstrate skills in pneumatic otoscopy.
13. Demonstrate skills in tracheostomy change in infants and children.
14. Learn basic proficient surgical skills for the performance of tympanocentesis, myringotomy and tympanostomy tube placement.
15. Learn basic proficient surgical skills for the performance of paper patch or fat graft myringoplasty
16. Demonstrate skills in nasal endoscopy, and flexible nasopharyngoscopy
17. Learn basic proficient surgical skills for maxillary sinus tap and irrigation.
18. Learn basic proficient surgical skills for the performance of reduction (closed) of fractured nose.
19. Learn basic proficient surgical skills for I&D of peri-tonsillar abscess.
20. Learn basic proficient surgical skills for the performance of incision and drainage of abscesses of the head and neck.

21. Learn basic proficient surgical skills for the performance of excisional and incisional biopsy of the head and neck.
22. Learn basic proficient surgical skills for mask ventilation.
23. Learn basic proficient surgical skills for intubation.
24. Learn basic proficient surgical skills for direct laryngoscopy.
25. Learn basic proficient surgical skills for bronchoscopy
26. Learn basic proficient surgical skills for esophagoscopy.
27. Learn basic proficient surgical skills for the performance of esophageal foreign body.
28. Learn basic proficient surgical skills for tracheotomy in children.
29. Learn basic proficient surgical skills for management of complications of tracheotomy.
30. Learn basic proficient surgical skills for adenotonsillectomy.
31. Identify and manage postoperative complications, including:
 - i. Wound infection
 - ii. Tissue ischemia
 - iii. Airway obstruction
 - iv. Postoperative pneumonia
 - v. Post-operative pulmonary edema.
 - vi. Pneumothorax
 - vii.

C. Interpersonal and Communication Skills

Goal: The otolaryngology resident will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health care professionals.

Competencies and Objectives:

1. Educate children and their parents in post operative strategies for therapy.
2. Demonstrate compassion for patients and families with traumatic and congenital deformities.
3. Provide adequate counseling and informed consent to patients/guardians.
4. Listen to patients and their families.
5. Assimilate data and information provided by other members of the health care team.
6. Chart and record accurate information.
7. Work effectively with others including referring physicians, agencies, patients/families and other members of the health care team.
8. Have effective and efficient time management skills.
9. Have the confidence to respectfully challenge those in authority.
10. Have effective and efficient written and verbal communication skills.
11. Maintain comprehensive, timely and legible medical records.

D. Practice-Based Learning and Improvement

Goal: The otolaryngology resident will investigate and evaluate his or her own patient care practices, appraise and assimilate scientific evidence, and improve patient care practices.

Competencies and Objectives:

1. Develop the ability to conduct a complete, clinically appropriate literature search for a pediatric otolaryngology problem.
2. Use technology to access scientific evidence, interpret the data and apply this knowledge to the care of patients.
3. Use mentorship in the clinical and surgical setting effectively.

E. System Based Practice

Goal: The otolaryngology resident will demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide optimal care for the for the infant and child with pediatric otolaryngology problem.

Competencies and Objectives:

1. Coordinate all aspects of care.
2. Advocate for infants and children within the health care system.
3. Facilitate the timely discharge of infants and children.
4. Use systematic approaches to reduce errors and improve patient care.
5. Advocate for quality patient care and improvements in patient care systems.
6. Be aware of Issues of confidentiality, and medico-legal topics related to patient care.
7. Have knowledge of ethical issues and potential conflicts of interest inherent in relationships with pharmaceutical companies.

F. Professionalism

Goal: The otolaryngology resident will demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

Competencies and Objectives:

1. Exhibit an unselfish regard for the welfare of patients.
2. Demonstrate firm adherence to a code of moral and ethical values.
3. Respect infants and children and their families, especially in times of trauma and stress to the family.

4. Respect and appropriately integrate other members of the care team.
5. Provide appropriately prompt consultations when required.
6. Demonstrate sensitivity to the individual patient's cultural family background as it applies to pediatric otolaryngology.
7. Be reliable, punctual, and accountable for own actions in the operating room and the clinic.
8. Recognize limitations and admit errors.
9. Demonstrate respect for patient privacy and autonomy.
10. Be sensitive and responsive to a diverse patient population.
11. Pay attention to detail.
12. Strive for excellence—not to be content with a satisfactory performance.
13. Have the initiative to help get the job done regardless of whose job it is.
14. Complete personal professional duties in a timely manner (i.e., case logs, GME Rocs schedule, dictations, etc).
15. Maintain a professional appearance while carrying out professional responsibilities.
16. Be on time.

G. Teaching

Goal: The pediatric otolaryngology resident will develop skills necessary to become a mentor for future generations of otolaryngologists and pediatric otolaryngologists.

Competencies and Objectives:

1. Teach medical students, interns in a classroom setting, demonstrating knowledge on a variety of specialty topics and the ability to explain these topics clearly and succinctly in a didactic session.
2. Teach medical students, interns the specialty of pediatric otolaryngology as it pertains to clinical duties and operative technique.
3. Develop skills at preparing and delivering oral presentations using Power Point.
4. Evaluate teaching effectiveness.

NARRATIVE DESCRIPTION OF THE EDUCATIONAL PROGRAM (P.R.V)

Please provide the following information for each institution offering educational experiences. Add additional pages numbered 10a, etc. so that a well-developed and complete description of the residents' education is provided.

2. PARTICIPATING INSTITUTION		
Name of Institution: Children's Hospital of Pittsburgh		
Is Otolaryngology a separate department in this participating institution?	YES X	NO
To whom does the Otolaryngology Program Director report?		
Name: Jonas J. Johnson, M.D.	Title: Professor and Chairman	
What percentage of the operative experience at this site is available for resident education?	100%	
Are all patients utilized for teaching purpose?	YES X	NO
If no, explain why:		
Provide a narrative description for <u>each year</u> of the educational program at this site. Include the goals and objectives for each assignment, an outline of the resident duties during the assignment; a description of the progression of resident responsibilities; the organization of the teaching service(s) and clinic(s) where residents are assigned. Also include a description of all educational conferences that residents are required to attend while assigned to this clinical site. (P.R. V. B).		

All the second and third year otolaryngology residents (PGY2 and PGY3) rotate through the Pediatric Otolaryngology Service at the Children's Hospital of Pittsburgh (CHP), with both a second and third year resident on the service at all times. Second year residents spend three consecutive months and third year residents spend three consecutive months at CHP. During their second year, residents spend two days per week in the operating rooms and three days in the outpatient department, and the third year residents spend three days in the operating rooms and two days in the outpatient department. The residents are always supervised by a full-time attending pediatric otolaryngologist in both the operating rooms and outpatient department. All patients are seen in the same outpatient setting and operating room; i.e., there is no "private" versus "service" clinic or operating rooms, and all patients are afforded treatment by the same group of physicians.

There are four full-time (two first year and two second year) pediatric otolaryngology residents (aka, fellows). There is

always one pediatric otolaryngology resident present in the operating rooms and outpatient department, as well as on call, to supervise the otolaryngology residents.

During both years of the CHP rotation, the otolaryngology residents are also responsible for evaluating the patients in the emergency room, inpatient consultations, and twice daily inpatient otolaryngology ward rounds. An average of two to four patients are seen daily (not including night call) in the CHP emergency room by the otolaryngology residents. Patients seen by an otolaryngology resident in the emergency room are also seen by a pediatric otolaryngology resident and an attending pediatric otolaryngologist. Both the attending pediatric otolaryngologist and the pediatric otolaryngology resident on call make daily rounds with the otolaryngology residents (including weekends). The third year otolaryngology resident acts as the “chief” resident for the pediatric otolaryngology service, and may supervise the first year otolaryngology resident on rounds and in the emergency room.

In the operating room, the PGY2 otolaryngology resident learns to perform basic procedures, including myringotomy and tube placement, tonsillectomy and adenoidectomy, tracheotomy, direct laryngoscopy, bronchoscopy, and esophagoscopy (See Attachment I). Second year residents may also assist in tympanoplasty and mastoid surgery, (taking the graft, lifting the flap, etc), resection of neck masses, laryngotracheoplasty (LTP), and sinus surgery. Third year residents, in addition to the above, are the primary surgeons (under supervision) for tympanoplasty, straightforward mastoid surgery, and excision of neck masses (See Attachment II). They may also harvest the rib graft for LTP, and perform some sinus surgical procedures and assist on more major sinus surgical procedures. With regard to emergency procedures, the otolaryngology resident present in the operating rooms, regardless of year, is supervised in the removal of airway and esophageal foreign bodies, esophagoscopy for caustic ingestion, tracheotomy, and otologic and sinus procedures.

There is a full academic and didactic program at CHP which is attended by otolaryngology residents, pediatric otolaryngology residents, all full-time pediatric otolaryngology attendings, medical students on the service, and visiting scholars. All conferences take place weekly. The second year resident is responsible for presentation of the patients at the Morbidity and Mortality conference once a week (schedule rotates). The Thursday and Friday morning educational conferences rotate between journal club, research conferences, and presentations given by invited speakers as well as members of the pediatric otolaryngology faculty. The morning lecture series includes invited speakers from immunology, allergy, neurology, gastroenterology, pulmonology, audiology, hematology/oncology, radiology and other services. This is in addition to active consultation with most of these services on the inpatients, as many of these children have complex medical as well as surgical problems (i.e. transplant patients). Every Wednesday morning, the residents attend the Department of Otolaryngology Grand Rounds.

There are also conferences in other departments which are available to the residents and include a weekly Hematology/Oncology Pediatric Tumor Board Conference, a monthly Plastic and Craniofacial Conference, and weekly Cleft Palate Clinic.

RESIDENCY BENCHMARKS IN PEDIATRIC OTOLARYNGOLOGY EDUCATIONAL GOALS AND OBJECTIVES

Otolaryngology Resident PGY4

I. Medical Knowledge:

Obtain understanding of diseases and disorders specific to infants and children, and differences in medical management of infants, children, and adults in the area of the ear, nose and throat – head and neck

- A. Develop understanding of the impact of congenital disorders on the care of pediatric patient
- B. Assessment and management including surgical indications for infants and children for the following conditions:
 - 1. Recurrent tonsillitis
 - 2. Hypertrophic adenotonsillar disease/ obstructive sleep apnea
 - 3. Otitis media
 - 4. Airway emergencies
 - 5. Foreign bodies in the aerodigestive tract
 - 6. Sinusitis
 - 7. Inflammatory and infectious conditions of the head and neck
 - 8. Evaluation of stridor
 - 9. Congenital head and neck anomalies

II. Patient Care:

Skills:

- A. Demonstrate skills in:
 - 1. physical examination of infants and children
 - 2. pneumatic otoscopy
 - 3. interpreting tympanometry, and behavioral audiometry results
 - 4. tracheostomy change in infants and children.
- B. Learn basic surgical skills for the care of common ear, nose and throat – head and neck, and bronchosopagologic diseases and disorders in infants and children:
 - 1. Bilateral myringotomy and tube insertion
 - 2. Paper patch/Fat graft myringoplasty
 - 3. Adenoidectomy and tonsillectomy
 - 4. I&D of peritonsillar abscess
 - 5. Tracheotomy
 - 6. Excision of minor neck masses
 - 7. Nasal endoscopy
 - 8. Antral irrigation
 - 9. Flexible laryngoscopy
 - 10. Direct laryngo-bronchoscopy in children
 - 11. Esophagoscopy and biopsy in children
 - 12. Removal of uncomplicated foreign bodies of the esophagus
 - 13. Closed reduction of nasal fracture
- C. Identification and management of post-surgical complication:
 - 1. Post-operative bleeding
 - 2. Wound infection
 - 3. Tissue ischemic
 - 4. Airway problem
 - 5. Postoperative pneumonia

III. Professionalism:

1. Demonstrates respect, compassion and integrity
2. Demonstrates a commitment to ethics, confidentiality, and informed consent
3. Demonstrates sensitivity and responsiveness to patient's age, culture, gender and disabilities

IV. Interpersonal and Communication Skills:

1. Creates sound relationship with patients and staff
2. Works effectively with others

V. Practice Based Learning and Improvement:

1. Appraises evidence from literature related to patients
2. Apply knowledge of studies and statistical methods to evaluate studies
3. Uses informatics technology effectively
4. Facilitates learning of others

VI. Systems-Based Practice:

1. Understands how their patient care relates to other healthcare providers
2. Understands healthcare costs
3. Practices cost effective healthcare and uses resources appropriately
4. Assists patients with system complexities

RESIDENCY BENCHMARKS IN PEDIATRIC OTOLARYNGOLOGY
EDUCATIONAL GOALS AND OBJECTIVES

Otolaryngology Resident – PGY2 Resident

I. Medical Knowledge:

- A. Assessment and management including surgical indications for infants and children for the following conditions:
1. Reconstruction of the airway
 2. Sensorineural hearing loss
 3. Tumors of the head and neck

II. Patient Care:

Skills:

The resident should have developed skills to perform the following procedures:

- A. Expand surgical skills for the care of infants and children:
1. Tympanoplasty/ ossicular reconstruction
 2. Cortical mastoidectomy
 3. Exploration of middle ear for perilymphatic fistula
 4. Endoscopic sinus surgery
 5. Septoplasty
 6. I & D of subperiosteal abscess
 7. Excision of submandibular gland
 8. I & D of neck abscess
 9. Excision of thyroglossal duct cyst and simple brachial cleft cysts
 10. Direct laryngo-bronchio-esophagoscopy in infant/children
 11. Removal of simple laryngo-bronchio-esophageal foreign bodies
 12. Assist in (not primary surgeon)
 - a. Laryngotracheal reconstruction
 - b. Tympanomastoidectomy for cholesteatoma
 - c. Cochlear implants
 - d. Microtia atresia repair
 - e. Complicated tumors in the head and neck
 - f. Surgery involving facial nerve (ear, parotid, branchial clefts cysts).
- B. Identification and management of post-surgical complication:
1. Post-operative bleeding
 2. Wound infection
 3. Tissue ischemic
 4. Airway problem
 5. Postoperative pneumonia

III. Professionalism:

- A. Demonstrates respect, compassion and integrity
- B. Demonstrates a commitment to ethics, confidentiality, and informed consent
- C. Demonstrates sensitivity and responsiveness to patient's age, culture, gender and disabilities

IV. Interpersonal and Communication Skills:

- A. Creates sound relationship with patients and staff

B. Works effectively with others

V. Practice Based Learning and Improvement:

- A. Appraises evidence form literature related to patients
- B. Apply knowledge of studies and statistical methods to evaluate studies
- C. Uses informatics technology effectively
- D. Facilitates learning of others

VI. Systems-Based Practice:

- A. Understands how their patient care relates to other healthcare providers
- B. Understands healthcare costs
- C. Practices cost effective healthcare and uses resources appropriately
- D. Assists patients with system complexities

OTOLARYNGOLOGY
RESIDENCY BENCHMARKS FOR THE VETERANS ADMINISTRATION MEDICAL
CENTER SERVICE
EDUCATIONAL GOALS AND OBJECTIVES -PGY3 RESIDENT

I. Medical Knowledge

1. Know diagnostic algorithms for:
 - a. Dizziness and Dysequilibrium
 - b. Hearing loss
 - c. Otagia
 - d. Aural drainage
 - e. Facial nerve paralysis
 - f. Rhinosinusitis
 - g. Nasal obstruction
 - h. Nasal polyposis
 - i. Atypical facial pain
 - j. Dysphagia
 - k. Mass in the neck
 - l. Odynophagia
 - m. Voice change
2. Know staging systems for cancer of the head and neck
3. Know definitions for rhinosinusitis
4. Know indications for surgical management for rhinosinusitis
5. Know indications/contraindications for surgical management of cancer of the head and neck
6. Know indications/techniques for radiotherapy
 - a. Primary treatment
 - b. Adjuvant therapy
7. Know sequence of steps in surgical procedures
 - a. Neck dissection, radical, modified
 - b. Laryngectomy - total, vertical, supraglottic
 - c. Mandibultomy and mandibulectomy
 - d. Excision oral cavity tumor
 - e. Excision oropharyngeal tumor
 - f. Mastoidectomy
 - g. Tympanoplasty

II. Patient Care Skills

1. Perform physical examination
 - a. Mirror
 - b. Neck
 - c. Palpation oropharynx
2. Perform instrumented physical examination
 - a. Flexible laryngoscopy

- b. Diagnostic nasal endoscopy
 - c. Videostrobolaryngoscopy
 - d. FEES examination
3. Interpret radiographs
- a. Axial CT of the neck
 - b. Axial and coronal CT of sinuses
 - c. Fine cut CT of temporal bone
 - d. Barium esophgram and video fluoroscopic examination
 - e. MRI of head and skull bone
4. Interpret diagnostic studies
- a. Vestibular testing
 - b. Audiometry
 - c. Auditory evoked response
5. Interpret histopathologic slides
- a. Squamous cell cancer (with differentiation)
 - b. Adenocarcinoma
 - c. Adenocystic carcinoma
 - d. Inverting papilloma
 - e. Nasal polyposis
6. Perform surgical procedures as primary surgeons
- a. Neck dissection
 - 1. Modified
 - 2. Selective
 - 3. Radical
 - b. Laryngectomy (total, supraglottic, vertical partial)
 - 1. Exposure
 - 2. Closure
 - 3. Mucosal incisions by PGY 5 or attending
 - c. Mandibulotomy/Mandibulectomy
 - 1. Exposure
 - 2. Bone cut
 - 3. Skin graft
 - 4. Tumor excision by PGY5 or attending
 - d. Endoscopic sinus surgery
 - 1. Placement of injections
 - 2. Uncinectomy
 - 3. Partial anterior ethmoidectomy
 - 4. Frontal recess, ager nasi exposure
 - 5. Posterior ethmoid and sphenoidotomy (performed by PGY5 or attending)
 - e. Tracheotomy

- f. Direct laryngoscopic surgery
 - 1. Diagnostic laryngotomy
 - 2. Microsurgery with biopsy, excision of lesion
 - 3. Laser surgery
- g. Rigid esophagoscopy
- h. Wound closure
- i. Parotidectomy
 - 1. Incision, flap, and closure facial nerve dissection to be done by PGY5 or attending
- j. Mastoidectomy
 - 1. Simple, CWD
- k. Tympanoplasty
 - 1. Transcanal, postauricular
- l. Facial nerve exposure, facial recess, removal of cholesteatoma, ossiculoplasty to be done by PGY5 or attending

III. Professionalism

1. Demonstrate respect for patients, family members and members of the healthcare team
2. Demonstrate “ownership” of patients by consistently reassessing diagnoses and treatment strategies
3. Know all pertinent patient-specific data for active patients
4. Respond rapidly to pages and messages, Follow-up on lab data, pathology, and radiology reports without reminders

IV. Interpersonal and Communication Skills

1. Educate patients and families in pre- and post-operative care
2. Demonstrate compassion for patients and families with congenital and acquired anomalies of the head and neck.
3. Provide adequate counseling and informed consent to patients.
4. Listen to patients and their families.
5. Assimilate data and information provided by other members of the health care team, in the care of patients
6. Assimilate data and information provided by the head and neck team and tumor board in the care of patients with head and neck cancer.

V. Practice-Based Learning

1. Continuously reappraise treatment algorithms
2. Critically assesses surgical outcomes
3. Know current evidence for practice

VI. Systems-Based Practice

1. Learn VA-specific computer medical record to include data review and order entry.

2. Expeditiously complete administrative requirements such as dictation of operative reports, discharge summaries and progress notes. Completion of all documentation to include histories and physicals, progress notes, path requests, and computerized medical record components.

OTOLARYNGOLOGY
RESIDENCY BENCHMARKS FOR THE VETERANS ADMINISTRATION MEDICAL
CENTER SERVICE
EDUCATIONAL GOALS AND OBJECTIVES – PGY5 Resident

I. Medical Knowledge

1. Know diagnostic algorithms for:
 - a. Dizziness and Dysequilibrium
 - b. Hearing loss
 - c. Otolgia
 - d. Aural drainage
 - e. Facial nerve paralysis
 - f. Rhinosinusitis
 - g. Nasal obstruction
 - h. Nasal polyposis
 - i. Atypical facial pain
 - j. Dysphagia
 - k. Neck mass
 - l. Oodynophagia
 - m. Voice change
2. Know staging systems for head and neck cancer
3. Know definitions for rhinosinusitis
4. Know indications for surgical management for rhinosinusitis
5. Know indications/contraindications for surgical management of head and neck cancer
6. Know indications/techniques for radiotherapy
 - a. Primary tumor
 - b. Adjuvant therapy
7. Know sequence of steps in surgical procedures
 - a. Neck dissection, radical, modified
 - b. Laryngectomy - total, vertical, supraglottic
 - c. Mandibultomy and mandibulectomy
 - d. Excision oral cavity tumor
 - e. Excision oropharyngeal tumor
 - f. Mastoidectomy
 - g. Tympanoplasty
 - h. Knowledge by equivalent to attending

II. Patient Care Skills

1. Perform physical exam
 - d. Mirror
 - e. Neck
 - f. Palpation oral pharynx
2. Perform instrumented physical examination
 - e. Flexible laryngoscopy

- f. Diagnostic nasal endoscopy
 - g. Videostrobolaryngoscopy
 - h. FEES examination
3. Interpret radiographs
 - a. Axial CT of the neck
 - b. Axial and coronal CT of sinuses
 - c. Fine cut CT of temporal bone
 - d. Barium esophgram and video fluoroscopic examination
 - e. MRI of head and skull bone
 4. Interpret diagnostic studies
 - a. Vestibular testing
 - b. Audiometry
 - c. Auditory evoked response
 5. Interpret histopathologic slides
 - a. Squamous cell cancer (with differentiation)
 - b. Adenocarcinoma
 - c. Adenocystic carcinoma
 - d. Inverting papilloma
 6. Perform surgical procedures as primary surgeons
 - a. Neck dissection
 - b. Modified
 - c. Selective
 - d. Radical (tumor dissected off carotid by PGY 5 or attending)
 7. Laryngectomy (total, supra, vertical hemi)
 - a. Exposure
 - b. Closure
 - c. Mucosal incisions by PGY 5 or attending
 - d. Mandibulotomy/Mandibulectomy
 - e. Exposure
 - f. Bone cut
 - g. Skin graft
 - h. Tumor excision by PGY5 or attending
 8. Endoscopic sinus surgery
 - a. Placement of injections
 - b. Uncinectomy
 - c. Partial anterior ethmoidectomy
 - d. Frontal recess, ager nasi exp
 - e. Posterior ethmoid and splenoidectomy to be performed by PGY5 or attending
 - f. Tracheotomy
 - g. Direct laryngoscopic surgery
 1. Diagnostic laryngotomy
 2. Microsurgery with biopsy, excision of lesion
 3. Laser surgery
 - h. Rigid esophagoscopy

- i. Wound closure
- j. Parotidectomy
 - 1. Incision, flap, and closure facial nerve dissection to be done by PGY5 or attending
- k. Mastoidectomy
 - 1. Simple, CWD
- l. Tympanoplasty
 - 1. Transcanal, postauricular
- m. Facial nerve exposure, facial recess, removal of cholesteatoma, ossiculoplasty to be done by PGY5 or attending
- n. Nasal polyposis
- 9. Function as attending in clinic
- 10. Resect tumors
- 11. Perform complex endoscopic sinus surgery
- 12. Perform temporal bone and middle ear surgery

III. Communications and Interpersonal Skills

- 1. Communicate effectively with patients and their families
- 2. Communicate effectively with other members of the VA health care team
- 3. Communicate effectively with consulting and consultant residents and attending

IV. Professionalism

- 1. Demonstrate respect for patients, family members and healthcare team members
- 2. Demonstrate “ownership” of patients by consistently reassessing diagnoses and treatment strategies
- 3. Know all pertinent patient-specific data for active patients
- 4. Respond rapidly to pages and messages
- 5. Follow-up on lab data, pathology, radiology reports without reminders

V. Practice-Based Learning

- 1. Continuously reappraise treatment algorithms
- 2. Critically assesses surgical outcomes
- 3. Know current evidence for practice

IV. Systems-Based Practice

1. Learn VA-specific computer medical record to include data review and order entry.
2. Expediently complete administrative requirements such as dictation of operative reports, discharge summaries and progress notes. Completion of all documentation to include histories and physicals, progress notes, path requests, and computerized medical record components.

Vascular Surgery (VA2) Rotation Specific Educational Goals and Objectives – Otolaryngology PGY1 Resident

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health of the patient before and after surgery.	<ul style="list-style-type: none"> To demonstrate knowledge of the assessment procedures to use before and after surgery 	<ul style="list-style-type: none"> Division Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	2. To be able to appropriately prepare the patient for surgery.	<ul style="list-style-type: none"> To properly assess the fitness of the patient through use of appropriate screening methods (e.g. cardiac screening) 	<ul style="list-style-type: none"> Division Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	3. To provide appropriate post-operative care to patient.	<ul style="list-style-type: none"> To track and conduct a proper assessment of patient's condition To be aware of changes in patient condition To be able to coordinate (along with other staff) needed services for patient 	<ul style="list-style-type: none"> Division Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	4. To become proficient in the delivery of basic patient care/ management skills	<ul style="list-style-type: none"> To be able to provide: <ul style="list-style-type: none"> Vascular exam Measurement of ankle-brachial index Wound care Wound debridement Drain care To be able to insert and remove: 	<ul style="list-style-type: none"> Ward Rounds Didactic teaching 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback

		<ul style="list-style-type: none"> ○ Foley catheter ○ Nasogastric tube ○ Peripheral IV ○ Central line <ul style="list-style-type: none"> ● To develop knowledge of the appropriate use of laboratories, radiologic studies, and endoscopic studies during the diagnosis, counseling, and management of patients with vascular disorders 		
	5. To be competent in providing basic surgical procedures	<ul style="list-style-type: none"> ● To be able to perform: <ul style="list-style-type: none"> ○ Skin closure ○ Amputation of digits and limbs ○ Surgical wound debridement ○ Treatment of varicose veins 	<ul style="list-style-type: none"> ● Open Skills Curriculum ● Division Conference ● Didactic Teaching ● Operative Teaching 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
	6. To gain familiarity with the use of surgical equipment as well as gain competence in use of technical skills	<ul style="list-style-type: none"> ● To demonstrate gradual acquisition of basic surgical skills such as: <ul style="list-style-type: none"> ○ Tie knots ○ Simple suturing ○ Incise tissue ○ Handle tissue gently ○ Handle and manipulate instruments 	<ul style="list-style-type: none"> ● Open skills Curriculum ● Operative teaching ● Ward Rounds ● Cadaver lab 	<ul style="list-style-type: none"> ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
Medical Knowledge	1. To develop a fund of knowledge concerning fundamental surgical principles and underlying anatomy	<ul style="list-style-type: none"> ● To recognize: <ul style="list-style-type: none"> ○ Preoperative evaluation/risk assessment ○ Antibiotic prophylaxis ○ Fluid therapy ○ Interpretation of angiograms 	<ul style="list-style-type: none"> ● Division Conference ● Didactic Teaching ● Operative Teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback

		<ul style="list-style-type: none"> ○ Preoperative nutrition ○ Principles of postoperative management ● To demonstrate competency in the steps of surgery upon and relevant anatomy of: <ul style="list-style-type: none"> ○ Amputation of digits and limbs ○ Varicose veins 		
	2. To gain knowledge about the evaluation and care of the patient	<ul style="list-style-type: none"> ● To recognize diagnosis and treatment options of such conditions as: <ul style="list-style-type: none"> ○ Venous stasis ○ Varicose veins ○ Diabetic foot ulcers ○ Gangrene of the extremities 	<ul style="list-style-type: none"> ● Division Conference ● Didactic teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
	3. Develop familiarity about the concepts and uses behind surgical equipment	<ul style="list-style-type: none"> ● To recognize and know the usage of different surgical instruments, catheters, needles, and sutures 	<ul style="list-style-type: none"> ● Didactic teaching ● Operative teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
Practice-based learning and improvement	1. To be able to critique one's day to day practice	<ul style="list-style-type: none"> ● To be able to self-direct learning as a result of input received critiquing one's own daily practice ● Obtain and use information about one's own patients and the larger population from which they are drawn ● Use information technology to manage information, access on-line medical 	<ul style="list-style-type: none"> ● Morbidity and Mortality Conference ● Ward Rounds ● Operative teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Global faculty evaluation ● Direct Observation and Attending Feedback ● Self-evaluations

		information, and support one's own education		
Interpersonal and communication skills	1. To be able to communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	<ul style="list-style-type: none"> To appropriately gather necessary information from patients Explain relevant information to patients and families 	<ul style="list-style-type: none"> Ward Rounds Outpatient clinic Family and patient care conference 	<ul style="list-style-type: none"> Direct observation and attending feedback Peer/staff evaluations Patient evaluations Global faculty evaluation
	2. To be able to effectively communicate with peers, allied health professionals, and the general public	<ul style="list-style-type: none"> Clearly communicates intentions Respond to requests from peers Transfer necessary information to team members 	<ul style="list-style-type: none"> Ward Rounds Outpatient clinic Family and patient care conference 	<ul style="list-style-type: none"> Direct observation and attending feedback Peer/staff evaluations Patient evaluations Global faculty evaluation
Professionalism	1. To maintain a sense of professional integrity between colleagues and patients and their families.	<ul style="list-style-type: none"> To be able to demonstrate: <ul style="list-style-type: none"> Ethical behavior toward patients and colleagues Respect toward colleagues and patients and their families A commitment to ethical principles pertaining to patient privacy and autonomy, the provision or withholding of 	<ul style="list-style-type: none"> Ward Rounds Outpatient clinic Didactic teaching Outpatient clinic Morbidity and Mortality conference 	<ul style="list-style-type: none"> Direct observation and attending feedback Global faculty evaluation Peer/staff evaluations Patient evaluations

		<p>clinical care, confidentiality of patient information, informed consent, conflict of interest, and business practices</p> <ul style="list-style-type: none"> ○ Openness about one's intentions ● To be responsible and accountable for one's own actions ● To be courteous toward colleagues and patients and their families ● To be sensitive and responsive to the patient's culture, age, gender, and disabilities 		
Systems-based practice	<p>1. To have an awareness of how one's own practice interfaces with the institution in which one practices</p>	<ul style="list-style-type: none"> ● To be knowledgeable about: <ul style="list-style-type: none"> ○ The function of the system ○ The relationship between the system and one's own practice ○ Practice-based outcomes ○ System expectations ○ Differences between the VA system and non-VA systems ● Assist patients and their families in dealing with system complexities ● Incorporate considerations of cost-awareness and risk- 	<ul style="list-style-type: none"> ● Case Conference ● Ward Rounds ● Didactic teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Direct observation and attending feedback ● Global faculty evaluation ● Peer/staff evaluations ● Patient evaluations

		benefit analysis into day to day practice		
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Trauma Rotation Specific Educational Goals and Objectives – Otolaryngology PGY1 Resident

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health and injuries of the trauma patient	<ul style="list-style-type: none"> To develop knowledge of the procedures for assessment of the injured patient 	<ul style="list-style-type: none"> Trauma Conference Didactic teaching Outpatient Clinic Ward Rounds ATLS Course 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	2. To be able to appropriately prepare the trauma patient for surgery.	<ul style="list-style-type: none"> To properly assess the fitness of the patient through use of appropriate screening methods 	<ul style="list-style-type: none"> Trauma Conference Didactic teaching Outpatient Clinic Ward Rounds ATLS Course 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	3. To know and perform ATLS	<ul style="list-style-type: none"> To develop knowledge of ATLS and the intern's role in the acute evaluation of a trauma patient To facilitate and follow a patient's care through the ER / CT scanners To follow consultant plans for acute trauma issues 	<ul style="list-style-type: none"> Trauma Conference Didactic teaching Outpatient Clinic Ward Rounds ATLS Course 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	4. To provide appropriate post-operative or post-trauma care to patients	<ul style="list-style-type: none"> To track and conduct a proper assessment of patient's condition To be aware of changes in patient condition To be able to coordinate 	<ul style="list-style-type: none"> Trauma Conference Didactic teaching Outpatient Clinic Ward Rounds ATLS Course 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation

		needed services for trauma patients		and Attending Feedback
	5. To become proficient in the delivery of basic patient care/ management skills	<ul style="list-style-type: none"> • To be able to provide: <ul style="list-style-type: none"> ○ Vascular exam ○ Neurologic exams including C-spine evaluations ○ Serial abdominal exams ○ Routine post-operative exams • To be able to insert and remove: <ul style="list-style-type: none"> ○ Foley catheter ○ Peripheral IV ○ Central line ○ NG tube 	<ul style="list-style-type: none"> • Trauma Conference • Ward Rounds • Didactic teaching • ATLS Course 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	6. To be competent in providing basic surgical procedures	<ul style="list-style-type: none"> • To be able to perform: <ul style="list-style-type: none"> ○ Skin closure ○ Surgical wound debridement 	<ul style="list-style-type: none"> • Open Skills Curriculum • Trauma Conference • Didactic Teaching • Operative Teaching • ATLS Course 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	7. To gain familiarity around the use of surgical equipment as well as gain competence in use of technical skills	<ul style="list-style-type: none"> • To demonstrate gradual acquisition of basic surgical skills such as: <ul style="list-style-type: none"> ○ Tie knots ○ Simple suturing ○ Incise tissue ○ Handle tissue gently ○ Handle and manipulate instruments 	<ul style="list-style-type: none"> • Open skills Curriculum • Operative teaching • Ward Rounds • Cadaver lab • ATLS Course 	<ul style="list-style-type: none"> • Global Faculty Evaluation • Direct Observation and Attending Feedback
Medical Knowledge	1. To develop a fund of knowledge concerning	<ul style="list-style-type: none"> • To recognize: <ul style="list-style-type: none"> ○ Preoperative evaluation/risk 	<ul style="list-style-type: none"> • Trauma Conference • Didactic Teaching 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination

	fundamental surgical principles and underlying anatomy of a trauma patient	<p>assessment</p> <ul style="list-style-type: none"> ○ Antibiotic prophylaxis ○ Airway management ○ Fluid therapy ○ Use of CT imaging ○ Preoperative nutrition ○ Principles of postoperative management <ul style="list-style-type: none"> ● To develop knowledge of the steps of and relevant anatomy of: a diagnostic peritoneal lavage 	<ul style="list-style-type: none"> ● Operative Teaching ● Ward Rounds ● ATLS Course 	<ul style="list-style-type: none"> ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
	1. To gain knowledge about the evaluation and care of the trauma patient	<ul style="list-style-type: none"> ● To recognize diagnosis and treatment options of such conditions as: <ul style="list-style-type: none"> ○ Traumatic brain injury ○ Intra-abdominal bleeding ○ Extremity fractures ○ Thoracic trauma ○ Penetrating trauma ○ Blunt trauma ○ Patterns of injury depending on mechanism of trauma 	<p>Trauma Conference Didactic teaching Ward Rounds ATLS Course</p>	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
	3. Develop familiarity about the concepts and uses behind surgical equipment	<ul style="list-style-type: none"> ● To recognize and know the usage of different surgical instruments, catheters, needles, and sutures 	<ul style="list-style-type: none"> ● Didactic teaching ● Operative teaching ● Ward Rounds ● ATLS Course 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
Practice-based learning and improvement	1. To be able to critique one's day to day practice	<ul style="list-style-type: none"> ● To be able to self-direct learning as a result of input received critiquing one's own daily practice 	<ul style="list-style-type: none"> ● Morbidity and Mortality Conference ● Ward Rounds 	<ul style="list-style-type: none"> ● Global faculty evaluation ● Direct Observation and Attending

		<ul style="list-style-type: none"> • Obtain and use information about one's own patients and the larger population from which they are drawn • Use information technology to manage information, access on-line medical information, and support one's own education 	<ul style="list-style-type: none"> • Operative teaching • Outpatient clinic 	<ul style="list-style-type: none"> • Feedback • Self-evaluations
Interpersonal and communication skills	1. To be able to communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	<ul style="list-style-type: none"> • To appropriately gather necessary information from patients • Explain relevant information to patients and families 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
	2. To be able to effectively communicate with peers, allied health professionals, and the general public	<ul style="list-style-type: none"> • Clearly communicates intentions • Respond to requests from peers • Transfer necessary information to team members 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
Professionalism	1. To maintain a sense of professional integrity between colleagues and patients and their families.	<ul style="list-style-type: none"> • To be able to demonstrate: <ul style="list-style-type: none"> ○ Ethical behavior toward patients and colleagues ○ Respect toward colleagues and patients and their families 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Didactic teaching • Outpatient clinic • Morbidity and Mortality conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Global faculty evaluation • Peer/staff evaluations

		<ul style="list-style-type: none"> ○ A commitment to ethical principles pertaining to patient privacy and autonomy, the provision or withholding of clinical care, confidentiality of patient information, informed consent, conflict of interest, and business practices ○ Openness about one's intentions ● To be responsible and accountable for one's own actions ● To be courteous toward colleagues and patients and their families ● To be sensitive and responsive to the patient's culture, age, gender, and disabilities 		<ul style="list-style-type: none"> ● Patient evaluations
Systems-based practice	1. To have an awareness of how one's own practice interfaces with the institution in which one practices	<ul style="list-style-type: none"> ● To be knowledgeable about: <ul style="list-style-type: none"> ○ The function of the system ○ The relationship between the system and one's own practice ○ Practice-based outcomes ○ System expectations ● Assist patients and their families in dealing with system complexities ● Incorporate considerations of cost-awareness and 	<ul style="list-style-type: none"> ● Case Conference ● Ward Rounds ● Didactic teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Direct observation and attending feedback ● Global faculty evaluation ● Peer/staff evaluations ● Patient evaluations

		risk-benefit analysis into day to day practice		
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**Surgical Oncology (Mixed Tumor Service) Rotation Specific Educational Goals and Objectives –
Otolaryngology PGY1 Resident**

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health of the patient before and after surgery, or regional or systemic therapy	<ul style="list-style-type: none"> To properly develop the assessment procedures to use before and after surgery or regional or systemic therapy 	<ul style="list-style-type: none"> Case Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	2. To be able to appropriately prepare the patient for surgery.	<ul style="list-style-type: none"> To properly assess the fitness of the patient through use of appropriate screening methods (e.g. cardiac screening) 	<ul style="list-style-type: none"> Case Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	3. To provide appropriate post-operative or post chemotherapy care to patient.	<ul style="list-style-type: none"> To track and conduct a proper assessment of patient's condition To be aware of changes in patient condition To be able to coordinate (along with other staff) needed services for patient 	<ul style="list-style-type: none"> Case Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation

				and Attending Feedback
	4. To become proficient in the delivery of basic patient care/ management skills	<ul style="list-style-type: none"> • To be able to provide: <ul style="list-style-type: none"> ○ Wound care ○ Drain care ○ Feeding tube Care • To be able to insert and remove: <ul style="list-style-type: none"> ○ Foley catheter ○ Nasogastric tube ○ Peripheral IV ○ Central line • To develop a knowledge of the appropriate use of laboratories, radiologic studies, and endoscopic studies during the diagnosis, counseling, and management of patients with oncologic disorders 	<ul style="list-style-type: none"> • Ward Rounds • Didactic teaching • WISER simulator 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation • and Attending • Feedback
	5. To be competent in performing surgical procedures	<ul style="list-style-type: none"> • To be able to perform: <ul style="list-style-type: none"> ○ Excision of breast mass ○ Excision of lymph nodes ○ Excision of skin lesions ○ Soft tissue biopsies and excisions ○ Gastrostomy and jejunostomy tubes 	<ul style="list-style-type: none"> • Open Skills Curriculum • Case Conference • Didactic Teaching • Operative Teaching • Cadaver lab 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation • and Attending • Feedback
	6. To gain familiarity around the use	<ul style="list-style-type: none"> • To demonstrate gradual acquisition of basic surgical skills such as: 	<ul style="list-style-type: none"> • Open skills Curriculum • Operative 	<ul style="list-style-type: none"> • Global Faculty Evaluation • Direct

	of surgical equipment as well as gain competence in use of technical skills	<ul style="list-style-type: none"> ○ Tie knots ○ Simple suturing ○ Incise tissue ○ Handle tissue gently ● Handle and manipulate instruments 	teaching <ul style="list-style-type: none"> ● Ward Rounds ● Cadaver lab ● WISER simulator 	Observation <ul style="list-style-type: none"> ● and Attending ● Feedback
	7.	●	●	●
Medical Knowledge	1. To develop a fund of knowledge concerning fundamental surgical principles and underlying anatomy, and learn how to critically evaluate and use current medical information and scientific evidence for patient care	<ul style="list-style-type: none"> ● To recognize: <ul style="list-style-type: none"> ○ Preoperative evaluation/risk assessment ○ Management of patients who have undergone regional of systemic therapies ○ Bowel preparation ○ Antibiotic prophylaxis ○ Fluid therapy ○ Use of endoscopic studies ○ Use of abdominal imaging ○ Preoperative nutrition ○ Principles of postoperative management care ● To recognize the steps of and relevant anatomy of: <ul style="list-style-type: none"> ○ Inguinal, axillary, and other lymph node excisions/dissections ○ Excision of breast masses ○ Excision of skin lesions 	<ul style="list-style-type: none"> ● Case Conference ● Didactic Teaching ● Operative Teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation ● and Attending ● Feedback
	2. To gain	● To recognize diagnosis and	● Case Conference	● Exit examination

	knowledge about the evaluation and care of the patient	treatment options of such conditions as: <ul style="list-style-type: none"> ○ Breast cancer/breast masses ○ Lymphadenopathy ○ Colorectal cancer 	<ul style="list-style-type: none"> ● Didactic teaching ● Ward Rounds ● Outpatient clinic 	<ul style="list-style-type: none"> ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending ● Feedback
	3. Develop familiarity about the concepts and uses behind surgical equipment	<ul style="list-style-type: none"> ● To recognize and know the usage of different surgical instruments, needles, and sutures 	<ul style="list-style-type: none"> ● Didactic teaching ● Operative teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending ● Feedback
Practice-based learning and improvement	1. To be able to critique one's day to day practice	<ul style="list-style-type: none"> ● To be able to self-direct learning as a result of input received critiquing one's own daily practice ● Obtain and use information about one's own patients and the larger population from which they are drawn ● Use information technology to manage information, access on-line medical information, and support one's own education 	<ul style="list-style-type: none"> ● Morbidity and Mortality Conference ● Ward Rounds ● Operative teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Global faculty evaluation ● Direct Observation and Attending Feedback ● Self-evaluations
	2.	<ul style="list-style-type: none"> ● 	<ul style="list-style-type: none"> ● 	<ul style="list-style-type: none"> ●

Interpersonal and communication skills	1. To be able to communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	<ul style="list-style-type: none"> • To appropriately gather necessary information from patients • Explain relevant information to patients and families 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
	2. To be able to effectively communicate with peers, allied health professionals, and the general public	<ul style="list-style-type: none"> • Clearly communicates intentions • Respond to requests from peers • Transfer necessary information to team members 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
Professionalism	1. To maintain a sense of professional integrity between colleagues and patients and their families.	<ul style="list-style-type: none"> • To be able to demonstrate: <ul style="list-style-type: none"> ○ Ethical behavior toward patients and colleagues ○ Respect toward colleagues and patients and their families ○ A commitment to ethical principles pertaining to patient privacy and autonomy, the provision 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Didactic teaching • Outpatient clinic • Morbidity and Mortality conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Global faculty evaluation • Peer/staff evaluations • Patient evaluations

		<p>or withholding of clinical care, confidentiality of patient information, informed consent, conflict of interest, and business practices</p> <ul style="list-style-type: none"> ○ Openness about one's intentions ● To be responsible and accountable for one's own actions ● To be courteous toward colleagues and patients and their families ● To be sensitive and responsive to the patient's culture, age, gender, and disabilities 		
Systems-based practice	<p>1. To have an awareness of how one's own practice interfaces with the institution in which one practices</p>	<ul style="list-style-type: none"> ● To be knowledgeable about: <ul style="list-style-type: none"> ○ The function of the system ○ The relationship between the system and one's own practice ○ Practice-based outcomes ○ System expectations ● Assist patients and their families in dealing with system complexities ● Incorporate considerations of cost-awareness and risk-benefit analysis into day to day practice 	<ul style="list-style-type: none"> ● Case Conference ● Ward Rounds ● Didactic teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Direct observation and attending feedback ● Global faculty evaluation ● Peer/staff evaluations ● Patient evaluations

OTOLARYNGOLOGY YEAR 5: RESIDENCY BENCHMARKS

SKULL BASE SURGERY ROTATION

Suggested Reading

1. Kassam A, Snyderman CH, Mintz A, Gardner P, Carrau RL: Expanded endonasal approach: the rostrocaudal axis. Part I. Crista galli to the sella turcica. *Neurosurg Focus*. 2005 Jul 15;19(1):E3. <http://thejns.org/doi/pdf/10.3171/foc.2005.19.1.4>
2. Kassam A, Snyderman CH, Mintz A, Gardner P, Carrau RL: Expanded endonasal approach: the rostrocaudal axis. Part II. Posterior clinoids to the foramen magnum. *Neurosurg Focus*. 2005 Jul 15;19(1):E4. <http://thejns.org/doi/pdfplus/10.3171/foc.2005.19.1.5>
3. Kassam AB, Gardner P, Snyderman C, Mintz A, Carrau R: Expanded endonasal approach: fully endoscopic, completely transnasal approach to the middle third of the clivus, petrous bone, middle cranial fossa, and infratemporal fossa. *Neurosurg Focus*. 2005 Jul 15;19(1):E6. <http://thejns.org/doi/pdf/10.3171/foc.2005.19.1.7>
4. Kassam A, Snyderman CH, Carrau RL, Gardner P, Mintz A: Endoneurosurgical hemostasis techniques: lessons learned from 400 cases. *Neurosurg Focus*. 2005 Jul 15;19(1):E7. <http://thejns.org/doi/pdf/10.3171/foc.2005.19.1.8>
5. Hadad G, Bassagasteguy L, Carrau RL, Mataza JC, Kassam A, Snyderman CH, Mintz A. A novel reconstructive technique after endoscopic expanded endonasal approaches: vascular pedicle nasoseptal flap. *Laryngoscope*. 2006 Oct;116(10):1882-6.
6. Snyderman CH, Kassam AB, Carrau R, Mintz A: Endoscopic approaches to the petrous apex. *Operative Techniques in Otolaryngology*. 2006;17:168-73.
7. Snyderman C, Kassam A, Carrau R, Mintz AH, Gardner P, Prevedello DM: Acquisition of surgical skills for endonasal skull base surgery: a training program. *Laryngoscope* 2007 Apr;117(4):699-705.
8. Kassam AB, Prevedello DM, Thomas A, Gardner P, Mintz A, Snyderman C, Carrau R. Endoscopic endonasal pituitary transposition for a transdorsum sellae approach to the interpeduncular cistern. *Neurosurgery*. 2008 Mar;62(3 Suppl):57-72; discussion 72-4.
9. Gardner PA, Prevedello DM, Kassam AB, Snyderman CH, Carrau RL, Mintz AH. The evolution of the endonasal approach for craniopharyngiomas. *J Neurosurg*. 2008 May;108(5):1043-7.

OTOLARYNGOLOGY YEAR 5: RESIDENCY BENCHMARKS

SKULL BASE SURGERY ROTATION

Suggested Reading

10. Snyderman CH, Carrau RL, Kassam AB, Zanation A, Prevedello D, Gardner P, Mintz A. Endoscopic skull base surgery: principles of endonasal oncological surgery. *J Surg Oncol*. 2008 Jun;97(8):658-64.
11. Carrau R, Snyderman C, Kassam A. Juvenile angiofibroma. Pp. 39-50. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
12. Carrau R, Snyderman C, Kassam A. Complications of endoscopic sinus surgery. pp. 131-8. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
13. Snyderman C, Carrau R. Bleeding during endoscopic sinus surgery. pp. 143-50. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
14. Snyderman C, Kassam A. Transcervical approaches to the cervical spine. Pp. 709-18. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
15. Stefko T, Snyderman C. Orbital decompression. Pp. 947-54. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
16. Vescan A, Carrau R, Snyderman C, Kassam A. Optic nerve decompression. Pp. 955-60. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
17. Stefko T, Snyderman C. Dacryocystorhinostomy. Pp. 967-72. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
18. Carrau R, Snyderman C, Vescan A, Kassam A. Surgery of the anterior cranial base. Pp. 979-96. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
19. Carrau R, Vescan a, Snyderman C, Kassam A. Surgical approaches to the infratemporal fossa. Pp. 997-1022. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.

OTOLARYNGOLOGY YEAR 5: RESIDENCY BENCHMARKS

SKULL BASE SURGERY ROTATION

Suggested Reading

20. Snyderman C, Carrau R, Kassam A. Endonasal approach to the sella and parasellar areas. Pp. 1045-52. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
21. Carrau R, Vescan A, Snyderman C, Kassam A. Endoscopic management of cerebrospinal fluid leaks. Pp. 1053-60. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
22. Carrau R, Vescan A, Snyderman C, Kassam A. Reconstruction after skull base surgery. pp. 1061-8. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
23. Snyderman C, Carrau R, Kassam A, Gardner P. Transnasal and transoral approaches to the cervical spine. Pp. 1069-74. In Myers E (ed): *Operative Otolaryngology Head And Neck Surgery, 2nd Edition*. Elsevier, Philadelphia, 2008.
24. Zanation AM, Snyderman CH, Carrau RL, Gardner PA, Prevedello DM, Kassam AB. Endoscopic endonasal surgery for petrous apex lesions. *Laryngoscope*. 2009 Jan;119(1):19-25.
25. Zanation AM, Carrau RL, Snyderman CH, Germanwala AV, Gardner PA, Prevedello DM, Kassam AB. Nasoseptal flap reconstruction of high flow intraoperative cerebral spinal fluid leaks during endoscopic skull base surgery. *Am J Rhinol Allergy*. 2009 Sep-Oct;23(5):518-21.
26. Patel MR, Shah RN, Snyderman CH, Carrau RL, Germanwala AV, Kassam AB, Zanation AM. Pericranial flap for endoscopic anterior skull-base reconstruction: clinical outcomes and radioanatomic analysis of preoperative planning. *Neurosurgery*. 2010 Mar;66(3):506-12; discussion 512.

OTOLARYNGOLOGY YEAR 5: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
SKULL BASE SURGERY

I. Responsibilities

The PGY5 skull base resident is responsible for inpatient and outpatient activities at UPMC Presbyterian and Montefiore Hospitals under the care of Dr. Carl Snyderman and members of the skull base surgery team. This includes an outpatient clinic 1.5 days per week and surgery on the remaining days. Occasionally surgeries are also performed at Children's Hospital and Magee Hospital.

This resident will cover trauma cases when the team is on call for trauma. The resident covers all consultations.

II. Medical Knowledge

1. Know diagnostic algorithms for:
 - a. Nasal obstruction
 - b. Epistaxis
 - c. Unilateral rhinorrhea
 - d. Olfactory loss
 - e. Facial pain/headache
 - f. Proptosis
 - g. Visual loss
 - h. Diplopia
2. Recall the biologic behavior of benign sinonasal and skull base neoplasms:
 - a. inverting papilloma
 - b. angiofibroma
 - c. fibrous dysplasia
 - d. pituitary adenoma
 - e. meningioma
 - f. craniopharyngioma
3. Recall the biologic behavior of malignant sinonasal and skull base neoplasms:
 - a. olfactory neuroblastoma
 - b. adenocarcinoma
 - c. squamous cell carcinoma
 - d. adenoid cystic carcinoma
 - e. chordoma
 - f. chondrosarcoma
4. Understand the staging systems for sinonasal tumors:
 - a. sinonasal cancer
 - b. olfactory neuroblastoma
 - c. angiofibroma
5. Understand the pathophysiology of spontaneous cerebrospinal fluid leaks
6. Know reconstructive techniques for the repair of cerebrospinal fluid leaks
7. Identify key anatomical landmarks of the sphenoid sinus and ventral skull base

8. Identify vascular anatomy of the sinuses and skull base
9. Identify the anatomy of the scalp layers and reconstructive flaps
10. Know the sequence of steps for endonasal pituitary surgery
11. Know the sequence of steps for endonasal resection of the anterior cranial base
12. Recall the history of skull base surgery at UPMC

III. Patient Care Skills

1. Perform endoscopic examination of the nasal cavity
2. Perform a complete assessment of cranial nerves
3. Interpret radiographs: identify anatomical landmarks
 - a. CT
 - b. MRI
 - c. PET scan
 - d. Angiogram
4. Interpret radiographs: develop differential diagnosis
 - a. inflammatory sinus disease
 - b. sinus neoplasia
 - c. benign fibro-osseous lesions
 - d. chondroid neoplasms
 - e. petrous apex lesions
5. Interpret tests and laboratory studies:
 - a. cerebrospinal fluid
 - b. pituitary function
 - c. visual fields
6. Perform surgical procedures independently
 - a. Complete sphenoethmoidectomy
 - b. Endoscopic frontal sinusotomy (Draf 3)
 - c. Endonasal approach to sella
 - d. Medial orbital decompression
 - e. Nasoseptal flap
 - f. Pericranial scalp flap
 - g. Temporalis muscle transposition
7. Provide postoperative care in hospital
 - a. recognize neurological complications
 - b. perform appropriate diagnostic tests
8. Provide postoperative care in clinic
 - a. remove nasal packing and splints
 - b. debride nasal crusting
 - c. assess for cerebrospinal fluid leak

IV. Communication and Interpersonal Skills

1. Communicate effectively with patients and their families
2. Communicate effectively with other members of the skull base team
3. Communicate effectively with health care providers on other services

V. Professionalism

1. Demonstrate respect for patients, family members and healthcare team members
2. Demonstrate “ownership” of patients by consistently reassessing diagnoses and treatment strategies
3. Know all pertinent patient-specific data for active patients
4. Respond rapidly to pages and messages
5. Follow-up on lab data, pathology, and radiology reports without reminders

VI. Practice-Based Learning

1. Continuously reappraise treatment algorithms
2. Critically assess surgical outcomes
3. Know current evidence for best practices

VII. Systems-Based Practice

1. Learn computer medical record to include data review and order entry
2. Expediently complete administrative requirements such as dictation of operative reports, discharge summaries and progress notes. Completion of all documentation to include history and physicals, progress notes, path requests, and computerized medical record components.
3. Collect data for skull base registry

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
SINO-NASAL DISORDERS AND ALLERGY- PGY2 Resident

I. Knowledge

1. Symptoms of Rhinosinusitis
 - a. Be able to differentiate subtleties in symptoms related to cause: viral, bacterial, allergy, fungal, structural, impaired mucociliary transport
 - b. Appreciation of non-sinus etiologies mimicking Sino-nasal disorders: GERD, migraine, CSF leak, psychological issues

2. Allergic Rhinitis
 - a. Pathophysiology of Allergic Rhinitis
 - b. Methods of detecting Allergy to inhalants and foods: skin (prick, intradermal dilutional testing) and in vitro testing
 - c. Food allergy: mechanism of elimination challenge diet
 - d. Role of environmental control in allergic rhinitis and basic interventions in environmental control

3. Facility with Directed Therapeutic Interventions - Pharmacologic
 - a. Nasal steroid sprays, antihistamines, decongestants, anticholinergics, leukotriene modulators, oral and topical antibiotics – knowledge of mechanism of action, effects, interactions and side effects

4. Facility with Therapeutic Interventions - Surgical
 - a. Anatomy of the nose and paranasal sinuses
 - b. Awareness of complications of nasal surgery and ESS and appropriate management

II. Patient Care

1. Symptoms of Rhinosinusitis
 - a. Be able to take a directed history in a timely manner
 - b. Be able to be a “detective” regarding triggers or possible causes of patient’s symptomatology
 - c. Ability to diagnosis comorbid conditions and initiate workup to diagnose or treat, including: extra esophageal reflux, obstructive sleep apnea, migraine, sino-genic facial pain, reactive airway disease
 - d. Be able to diagnose and manage complications of rhinosinusitis (orbital, intracranial)

2. Appreciation of the Role of Diagnostic Maneuvers in Management of Rhinosinusitis
 - a. CT scan, nasal endoscopy, cultures, smell tests, mucociliary transport, allergy testing, immunodeficiency evaluation, plane films, sino-nasal biopsies, evaluation of response to therapeutic interventions.

- b. Effective communication regarding elimination challenge diet
- 3. Facility with Directed Therapeutic Interventions - Pharmacologic
 - a. Appropriate choice of pharmacologic intervention based on diagnosis and symptomatology as well as clear communication with the patient regarding how to use these medications.
 - b. Awareness of side effects and efficacy of different medications and appropriate education of patient
 - c. Effective communication regarding environmental controls
- 4. Facility with Therapeutic Interventions - Surgical
 - a. Appropriate pre-surgical evaluation and implementation of appropriate pharmacologic interventions prior to surgery
 - b. Able to perform limited Endoscopic Sinus Surgery (ESS), antral taps, sinus aspirates, sinus irrigation and nasal endoscopy with minimal discomfort to patient by end of rotation
 - c. Able to perform a Septoplasty & turbinate reduction by end of rotation
 - d. Observe office procedures of microdebridement of polyps, steroid injections by end of rotation
 - e. Able to diagnosis site of epistaxis endoscopically and control with minimal packing
 - f. Able to manage complications of above interventions
- 5. Recognize and administer allergy testing

III. Practice- Based Learning

- a. Acquire and implement evidence-based medicine techniques in the outpatient and surgical management of allergy and sinus patients.
- b. Analyze the effectiveness of own practices in caring for allergy and sinus patients
- c. Search the medical literature and use information technology to support self-education

IV. Interpersonal and Communication Skills

- a. Clearly and concisely present new patient information (history, examination, and medical decision making) to the faculty
- b. Develop a personal rapport with patients and their family members
- c. Demonstrate empathy to allergy and sinus patients' symptoms, concerns, anxieties, and fears.

V. System- Based Practice

- a. Function as a liaison with other involved services of Pulmonary and

- allergy.
- b. Recognize the value and function of a multidisciplinary team approach to patients with sinus and allergy
- c. Recognize the billing/coding, documentation, and insurance coverage concerns as they relate to sinus and allergy

VI. Professionalism

- a. Exhibit an unselfish regard for the welfare of patients.
- b. Demonstrate firm adherence to a code of moral and ethical values.
- c. Respect and appropriately integrate other members of the care team.
- d. Provide appropriately prompt consultations when required.
- e. Demonstrate sensitivity to the individual patient's cultural family background as it applies to pediatric otolaryngology.
- f. Be reliable, punctual, and accountable for own actions in the operating room and the clinic.
- g. Recognize limitations and admit errors.
- h. Demonstrate respect for patient privacy and autonomy.
- i. Be sensitive and responsive to a diverse patient population.
- j. Pay attention to detail.
- k. Strive for excellence—not to be content with a satisfactory performance.
- l. Have the initiative to help get the job done regardless of whose job it is.
- m. Complete personal professional duties in a timely manner (i.e., case logs, GME Rocs schedule, dictations, etc).
- n. Maintain a professional appearance while carrying out professional responsibilities.
- o. Be on time.

III Directed Reading

9 week Reading Program for PGY 2's on BJ Ferguson's: Sinonasal Disorders and Allergy Rotation created August 14, 2009

All reading is taken from:

1. Bailey and Johnson's Head and Neck Surgery-Otolaryngology, 4th edition
section 2: Rhinology and allergy
chapters 21 –31, 33- 36
2. Eugene Myers' Operative Otolaryngology Head and Neck Surgery (OOHandNS), 2nd edition
volume 1 section 1: Nasal cavity, Nasopharynx And Sinuses
chapters 1-3, 7-9, 12-20

Week 1:

B&J: Chapter 31 Sinus Imaging, *skim over the weird and unusual in this Chapter and concentrate on the basics*

B& J: Chapter 22 Sinonasal Anatomy, Function and Evaluation
read in detail, you will be quizzed

OOHand NS: Chapter 1 Office-Based Diagnosis of Sinonasal Disorders

Week 2:

B&J: Chapter 23 Surgical Management of Septal Deformity, Turbinate Hypertrophy, Nasal Valve Collapse and Choanal Atresia
ignore nasal valve collapse procedures in this Chapter and read along with the following Chapter

OOH and NS: Chapter 3 Surgical Correction of Nasal Obstruction

Week 3:

OOHand NS: Chapter 2 Epistaxis

OOHand NS: Chapter 20 Bleeding during Endoscopic Sinus Surgery, *just skim this*

B&J: Chapter 36 Epistaxis

Week 4:

OOHand NS: Chapter 3 Endoscopic Approach to Maxillary Sinus

OOH and NS: Chapter 8 The Caldwell Luc Operation

OOHand NS: Chapter 9 Oral Antral Fistulas

B & J: Chapter 24 Immunology and Allergy , *just skim this*

B&J: Chapter 25 Allergic and Non-Allergic Rhinitis, *just skim this*

Week 5:

OOHand NS: Chapter 13 External Ethmoidectomy

OOHand NS: Chapter 15 External Approaches to the Frontal Sinus

B&J: Chapter 26 External Approaches and Sinus Surgery

B&J: Chapter 27 Granulomatous and Autoimmune Diseases of the Nose and Sinuses. *This is an important Chapter and full of items which may be on the in service*

Week 6 :

OOHand NS: Chapter 12 Endoscopic Ethmoidectomy

OOHand NS: Chapter 14 Endoscopic Sphenoid Sinus

B&J: Chapter 28 Chronic Hypertrophic Rhinosinusitis and Nasal Polyposis

B&J: Chapter 29 Non Polypoid Rhinosinusitis: Classification Diagnosis and Treatment

Week 7:

OOHand NS: Chapter 16 Endoscopic Approach to Frontal Sinus

B&J: Chapter 30 Fungal Rhinosinusitis

B&J: Chapter 33 Endoscopic Sinus Surgery *skim this one*

Week 8:

OOHandNS: Chapter 18 Complications of Endoscopic Sinus Surgery: CSF leak

OOHand NS: Chapter 19 Orbital Complications of Endoscopic Sinus Surgery

B&J: Chapter 34 Complications of Sinus Surgery

Week 9:

B &J: Chapter 35 Complications of rhinosinusitis, *important Chapter*

B&J: Chapter 21 olfactory function and dysfunction, *just skim this one, it is way too detailed*

Every Friday there will be a one hour oral quiz of the prior week's reading conducted with the rhinology fellow.

Otolaryngology Residency Benchmarks

Educational Goals and Objectives

Sleep Swallowing – PGY3 Resident

I. Medical Knowledge

Goal: The resident will demonstrate in-depth knowledge of the upper airway anatomy, pathophysiology of sleep apnea, and a range of sleep medicine disorders, and will apply this knowledge to current medical and surgical management strategies.

Objectives:

- a. Upper airway anatomy
 - i. Describe the nasal anatomy including significance of the internal nasal valve
 - ii. List structural and inflammatory causes of nasal airway obstruction (NAO)
 - iii. Describe the pharyngeal anatomy in terms of a structural muscle buttress system
 - iv. Explain the anatomical and functional significance of the uvula
 - v. Recognize different configurations of palatal anatomy (i.e. oblique, mixed, and vertical patterns)
 - vi. Describe hypopharyngeal anatomy in terms of the Moore classification
- b. Sleep disordered breathing
 - i. Recognize the epidemiology, presentation, risk factors, and clinical consequences of obstructive sleep apnea (OSA)
 - ii. Discuss normal respiratory physiology during sleep, and the pathophysiology and loss of control of breathing that occurs in patients with OSA
 - iii. Recognize the association of weight/BMI on the pathophysiology of OSA
 - iv. List the accepted indications for sleep laboratory evaluation and the various types of studies available (diagnostic PSG, therapeutic PSG, split night study, MSLT)

- v. Discuss the advantages/disadvantages of home portable monitoring systems including 4-channel monitors (i.e. Stardust, ApneaLink) and PAT technology (i.e. WatchPAT)
- vi. Know the accepted definitions of 'apnea', 'hypopnea', and 'flow limited event' according to the AASM scoring manual
- vii. Discuss the indications, advantages/disadvantages, and benefits/limitations of positive airway pressure therapy including CPAP, BIPAP, and autotitrating devices
- viii. Recognize common reasons for non-adherence to PAP therapy and methods and options for improving compliance
- ix. Discuss oral appliance therapy including types, indications, side effects, reasons for non-adherence, and methods of improving results and compliance
- x. Discuss other medical OSA treatment options including weight loss, positional therapy, head of bed elevation, oxygen therapy, and nasal end-expiratory devices

c. Sleep medicine

- i. Demonstrate the ability to review and interpret the raw data on a polysomnogram including
 1. Scoring of sleep stages
 2. Sleep efficiency
 3. Sleep architecture
 4. Sleep continuity
 5. Respiratory events
 6. Oxygenation
 7. Limb movements
 8. Cardiac variability
- ii. Recognize the prevalence of other sleep disorders in patients with OSA and the importance of obtaining a comprehensive sleep history
- iii. Identify common causes of hypersomnia other than sleep apnea

- iv. Know the clinical features for the diagnosis of restless legs syndrome and discuss an algorithm for evaluation and management
 - v. Describe the difference between restless legs syndrome and periodic limb movement disorder
 - vi. Discuss the various types of insomnia (sleep-onset, sleep-maintenance, early morning awakening) and provide a differential diagnosis for both primary and secondary etiologies
 - vii. Recognize the basics of both behavioral and medical therapy for insomnia
 - viii. Discuss proper sleep hygiene and duration
 - ix. Be familiar with the other less common sleep disorders such as narcolepsy, REM behavior disorder, and circadian rhythm disorders
 - x. Recognize the effects of other medical comorbidities (i.e. depression, chronic pain, obesity, CHF, COPD, neuromuscular disease) and medications (i.e. narcotics, benzodiazepines, SSRIs, hypnotics, melatonin, stimulants) on sleep and breathing
- d. Sleep surgery
- i. General
 1. Recognize how surgical therapy fundamentally differs from other forms of device therapy and the unique challenges to effectively studying and evaluating surgical procedures for sleep apnea
 2. Recognize that the AHI is only one metric of disease severity and correlates poorly with patient symptoms, general health and sleep-related quality of life measures, and performance on psychomotor vigilance testing
 3. Recognize that surgical therapy can be a sole treatment modality or an adjunct to other treatments, and the goals of surgical therapy vary from patient to patient and across a lifespan
 4. Properly phenotype and describe a patient's airway using physical exam techniques and end-expiratory supine nasolaryngoscopy
 5. Recommend specific surgical procedures to address the various anatomical patterns of airway obstruction
 6. Discuss reasons for failure of surgical therapy
 7. Recognize that most patients with sleep apnea have multilevel obstruction and therefore successful

management often demands multilevel therapy

8. Describe the physiologic changes that occur during propofol-induced sleep and how drug-induced sleep endoscopy assists in surgical treatment planning

ii. Snoring

1. Discuss the association between snoring and carotid atherosclerosis
2. Discuss options for office-based treatment of snoring, including cost, risks, benefits, and effectiveness (i.e. injection snoreplasty, radiofrequency, palatal implants)

iii. Nose

1. Discuss the relationship between nasal obstruction and sleep disordered breathing and the mechanisms by which this association occurs
2. Discuss the benefits of lowering nasal resistance by nasal surgery on snoring, sleep quality, QOL, AHI, CPAP acceptance and compliance, and oral appliance outcomes

iv. Oropharynx

1. Recommend appropriate palatal surgery based on different patterns of oropharyngeal obstruction and configurations of palatal anatomy
2. Discuss problems and pitfalls with traditional UPPP surgery, and methods of improving effectiveness and reducing perioperative morbidity
3. Recognize the importance of uvular preservation
4. Recognize anatomic principles and surgical steps involved in other forms of palatal surgery (e.g. expansion sphincter pharyngoplasty, transpalatal advancement, z-palatoplasty, anterior palatoplasty)

v. Hypopharynx

1. Recognize that multilevel obstruction is common and hypopharyngeal surgery is necessary in most patients undergoing primary surgical therapy to improve outcomes
2. Recommend appropriate hypopharyngeal surgery based on different patterns of oropharyngeal obstruction and configurations of palatal anatomy
3. Discuss the benefits, limitations, and risks of common hypopharyngeal procedures including lingual tonsillectomy, coblation partial glossectomy, tongue stabilization, genioglossus advancement, and hyoid

suspension

vi. Other

1. Recognize the role of maxillomandibular advancement surgery and tracheotomy for the treatment of severe OSA
2. Discuss the unique perioperative concerns specific to patients with OSA

II. Patient Care

Goal: The resident will provide quality and compassionate clinical care for the management of patients with obstructive sleep apnea and related sleep disorders.

Objectives:

a. Outpatient office

- i. Obtain a comprehensive sleep history
- ii. Perform a thorough upper airway examination including supine nasolaryngoscopy
- iii. Generate a thorough differential diagnosis
- iv. Make decisions for effective workup including appropriate sleep laboratory testing, pulmonary function studies, and/or bloodwork
- v. Review polysomnography data and/or outside sleep study reports
- vi. Formulate a treatment algorithm that includes both medical and surgical options for sleep apnea
- vii. Assess and manage patients with a wide variety of non-respiratory sleep disorders including restless legs syndrome, periodic limb movement disorder, parasomnias, insomnia, circadian rhythm disorders, narcolepsy, and sleepiness in other medical and psychiatric disorders
- viii. Discuss risks and benefits of proposed surgical procedures

b. Surgery

- i. Perform drug-induced sleep endoscopy with knowledge of the appropriate anesthesia protocol and techniques to assess for anatomical patterns of obstruction
- ii. Perform tonsillectomy using techniques that maximize mucosal preservation and minimize thermal injury
- iii. Perform adenoidectomy with plasma technology
- iv. Perform submucosal inferior turbinate reduction with the microdebrider
- v. Perform basic septoplasty technique including hemitransfixion incision, flap elevation, bone/cartilage resection, and closure
- vi. Assist in advanced surgical techniques of the palate and recognize the principles behind these techniques
- vii. Assist in advanced surgical techniques of the hypopharynx and

- recognize the principles behind these techniques
- viii. Prescribe appropriate perioperative medical therapy to limit pain, secondary inflammation, and risk of complications
- ix. Recommend appropriate dietary/activity restrictions and other postoperative care to optimize results and reduce morbidity

c. Inpatient care

- i. Admit patients for postoperative observation when appropriate and alert the nursing staff and on-call resident to any active clinical concerns
- ii. Discharge patients when appropriate and arrange for outpatient follow-up
- iii. Promptly evaluate and manage inpatient and ED consultations and staff with attending on-call

Practice Based Learning

Goal: The resident will investigate and evaluate patient care practices, appraise and assimilate scientific evidence, and improve patient care practices.

Objectives:

- d. Acquire and implement evidence-based medicine techniques in the outpatient and surgical management of sleep patients
- e. Analyze the effectiveness of own practices in caring for sleep patients
- f. Search the medical literature and use information technology to support self-education
- g. Educate medical students, visiting scholars, and staff on the practices of sleep medicine and sleep surgery
- h. Participate in multidisciplinary sleep conferences and sleep medicine grand rounds, using new information to modify clinical practice
- i. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of sleep patients

III. Interpersonal and Communication Skills

Goal: The resident will demonstrate affable effective communication with patients, family members, office staff, OR personnel, and other medical professionals

Objectives:

- a. Clearly and concisely present new patient information (history, examination, and medical decision making) to the faculty
- b. Develop a personal rapport with patients and their family members
- c. Recognize the difference between 'caring' and 'treating' in medical practice and the tremendous impact of the placebo effect
- d. Demonstrate empathy to sleep patients' symptoms, concerns, anxieties,

- and fears.
- e. Educate patients and family members on the clinical implications of sleep apnea, reasons and goals for treatment, medical and surgical treatment options, and perioperative management concerns
 - f. Effectively communicate with other medical professionals in the outpatient office and operating room

IV. System Based Practice

Goal: The resident will demonstrate an awareness of and responsiveness to the larger context and system of health care, and the ability to effectively call on system resources to provide optimal care

Objectives:

- a. Function within the UPMC Sleep Medicine Center including coordination of care with other sleep specialists in the sleep laboratory, pulmonary medicine, neurology, psychiatry, behavioral psychology, dentistry, and pediatrics
- b. Recognize the value and function of a multidisciplinary team approach to patients with sleep disorders
- c. Participate in multidisciplinary sleep conference and sleep grand rounds
- d. Recognize the advantages/disadvantages of portable sleep study monitoring as it relates to cost-effectiveness and public health access
- e. Recognize the billing/coding, documentation, and insurance coverage concerns as they relate to sleep disorders and sleep apnea surgery

V. Professionalism

Goal: The resident will demonstrate a commitment to professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

Objectives:

Treat patients and family members with compassion and respect

Practice strict adherence to hand-washing, cleanliness, and infection control principles when examining patients

Respect and appropriately integrate nurses, medical assistants, and other members of the health care team

Practice strict adherence to patient privacy in all places including the office, hospital, public areas, and on the phone

Recommended Reading:

1. Davidson TM. Sleep medicine for surgeons. *Laryngoscope* 2008; 118:915-31. (Review article)
2. Yaremchuk K, Wardrop PA, eds. *Sleep Medicine*. Plural Publishing; 2010. (Sleep medicine textbook)

3. Friedman M, ed. *Sleep apnea and snoring: surgical and non-surgical therapy*. Elsevier Health Sciences; 2008.
(Sleep surgery textbook)

Key articles on multiple other specific topics will be introduced and discussed during the rotation.

Plastic Surgery Rotation Specific Educational Goals and Objectives – Otolaryngology PGY1 Resident

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health of the patient before and after surgery.	<ul style="list-style-type: none"> • To demonstrate knowledge of the assessment procedures to use before and after surgery 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	2. To be able to appropriately prepare the patient for surgery.	<ul style="list-style-type: none"> • To properly assess the fitness of the patient through use of appropriate screening methods (e.g. cardiac screening) 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	3. To provide appropriate post-operative care to patient.	<ul style="list-style-type: none"> • To track and conduct a proper assessment of patient's condition • To be aware of changes in patient condition • To be able to coordinate (along with other staff) needed services for patient 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	4. To become proficient in the delivery of basic patient care/ management skills	<ul style="list-style-type: none"> • To be able to provide: <ul style="list-style-type: none"> ○ Wound care ○ Drain care ○ Bedside wound debridement ○ VAC placement 	<ul style="list-style-type: none"> • Ward Rounds • Didactic teaching 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending

				Feedback
	5. To be competent in providing basic surgical procedures	<ul style="list-style-type: none"> • To be able to perform: <ul style="list-style-type: none"> ○ Skin closure ○ Surgical wound debridement ○ Excision of skin/soft tissue lesions 	<ul style="list-style-type: none"> • Open Skills Curriculum • Division Conference • Didactic Teaching • Operative Teaching 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	6. To gain familiarity around the use of surgical equipment as well as gain competence in use of technical skills	<ul style="list-style-type: none"> • To demonstrate gradual acquisition of basic surgical skills such as: <ul style="list-style-type: none"> ○ Tie knots ○ Simple suturing ○ Incise tissue ○ Handle tissue gently ○ Handle and manipulate instruments 	<ul style="list-style-type: none"> • Open skills Curriculum • Operative teaching • Ward Rounds • Cadaver lab 	<ul style="list-style-type: none"> • Global Faculty Evaluation • Direct Observation and Attending Feedback
Medical Knowledge	1. To develop a fund of knowledge concerning fundamental surgical principles and underlying anatomy	<ul style="list-style-type: none"> • To recognize: <ul style="list-style-type: none"> ○ Preoperative evaluation/risk assessment ○ Antibiotic prophylaxis ○ Fluid therapy ○ Preoperative nutrition ○ Principles of postoperative management • To recognize the steps of and relevant anatomy of: <ul style="list-style-type: none"> ○ Flaps ○ Grafts ○ Breast ○ Abdominal wall ○ Face ○ Hand 	<ul style="list-style-type: none"> • Division Conference • Didactic Teaching • Operative Teaching • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback

	2. To gain knowledge about the evaluation and care of the patient	<ul style="list-style-type: none"> • To recognize the diagnosis and treatment options of such conditions as: <ul style="list-style-type: none"> ○ Ventral hernias ○ Soft tissue ulcers ○ Post-mastectomy defects ○ Facial trauma ○ Hand trauma ○ Chronic open wounds ○ Skin and soft tissue lesions 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	3. Develop familiarity about the concepts and uses behind surgical equipment	<ul style="list-style-type: none"> • To recognize and know the usage of different surgical instruments, needles, and sutures 	<ul style="list-style-type: none"> • Didactic teaching • Operative teaching • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	4. To be able to critique one's day to practice	<ul style="list-style-type: none"> • To be able to self-direct learning as a result of input received critiquing one's own daily practice • Obtain and use information about one's own patients and the larger population from which they are drawn • Use information technology to manage information, access on-line medical information, and support one's own education 	<ul style="list-style-type: none"> • Morbidity and Mortality Conference • Ward Rounds • Operative teaching • Outpatient clinic 	<ul style="list-style-type: none"> • Global faculty evaluation • Direct Observation and Attending Feedback • Self-evaluations
Interpersonal	1. To be able to	<ul style="list-style-type: none"> • To appropriately gather 	<ul style="list-style-type: none"> • Ward Rounds 	<ul style="list-style-type: none"> • Direct observation

<p>and communication skills</p>	<p>communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.</p>	<p>necessary information from patients</p> <ul style="list-style-type: none"> • Explain relevant information to patients and families 	<ul style="list-style-type: none"> • Outpatient clinic • Family and patient care conference 	<p>and attending feedback</p> <ul style="list-style-type: none"> • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
	<p>2. To be able to effectively communicate with peers, allied health professionals, and the general public</p>	<ul style="list-style-type: none"> • Clearly communicates intentions • Respond to requests from peers • Transfer necessary information to team members 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
<p>Professionalism</p>	<p>1. To maintain a sense of professional integrity between colleagues and patients and their families.</p>	<ul style="list-style-type: none"> • To be able to demonstrate: <ul style="list-style-type: none"> ○ Ethical behavior towards patients and colleagues ○ Respect toward colleagues and patients and their families ○ A commitment to ethical principles pertaining to patient privacy and autonomy, the provision or withholding of clinical care, confidentiality of 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Didactic teaching • Outpatient clinic • Morbidity and Mortality conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Global faculty evaluation • Peer/staff evaluations • Patient evaluations

		<p>patient information, informed consent, conflict of interest, and business practices</p> <ul style="list-style-type: none"> ○ Openness about one's intentions ● To be responsible and accountable for one's own actions ● To be courteous toward colleagues and patients and their families ● To be sensitive and responsive to the patient's culture, age, gender, and disabilities 		
Systems-based practice	<p>1. To have an awareness of how one's own practice interfaces with the institution in which one practices</p>	<ul style="list-style-type: none"> ● To be knowledgeable about: <ul style="list-style-type: none"> ○ The function of the system ○ The relationship between the system and one's own practice ○ Practice-based outcomes ○ System expectations ● Assist patients and their families in dealing with system complexities ● Incorporate considerations of cost-awareness and risk-benefit analysis into day to day practice 	<ul style="list-style-type: none"> ● Case Conference ● Ward Rounds ● Didactic teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Direct observation and attending feedback ● Global faculty evaluation ● Peer/staff evaluations ● Patient evaluations

Goals and Objectives
Otolaryngology Residents
Pediatric Otolaryngology Rotation – PGY1 Resident

The PGY1 (first year) otolaryngology residents spend their 4 weeks at Children's Hospital of Pittsburgh.

A. Medical Knowledge

Goal:

Otolaryngology resident will develop basic knowledge of anatomy, physiology and pathophysiology as it relates to the care of infants and children with common diseases, illnesses and anomalies in the field of pediatric otolaryngology.

A.1. Medical Knowledge

I. Air and Food Passages

Goal: The resident will demonstrate knowledge of the relevant anatomy and physiology and the diagnosis of common pathology of the aerodigestive tract.

Competencies and Objectives:

1. Describe the embryology of the aerodigestive tract.
2. Describe the physiology of respiration and the multiple functions of the respiratory mucosa.
3. Describe types and severity of stridor and likely diagnoses.
4. Describe the importance of retractions and other symptoms and signs of respiratory distress.
5. Describe the technique for masking and ventilation.
6. Describe the types and appropriate size of endotracheal tube and the positioning and technique for intubation.
7. Describe indications for adenotonsillectomy.
8. Describe the anatomy of the tonsils including the blood supply.
9. Recite normal palatal anatomy and function.

II. Ear and Temporal Bone

Goal: The resident will understand the anatomy, physiology of ear and related structures, pathophysiology and treatment of otitis media.

Competencies and Objectives:

1. Discuss the embryology of the external, middle, and inner ear. How does this relate to the branchial apparatus?
2. Describe the anatomy of the external ear.
3. Describe the normal anatomy of the tympanic membrane as seen on otoscopy.
4. Describe temporal bone anatomy with special emphasis on components and relationships relevant to the middle ear and mastoid surgery.
5. Describe the pathophysiology of otitis media and risk factors in children.
6. Describe the anatomy and physiology of the Eustachian tube.
7. Understand the indications for tympanocentesis, myringotomy, and ventilation tube placement.
8. Describe a normal tympanogram. Describe a tympanogram for an ear with negative middle ear pressure; and one for an ear with a middle ear effusion.
9. Reproduce a normal audiogram, with masking if necessary. Distinguish between an audiogram showing conductive hearing loss and sensorineural hearing loss.

III. Nose, Nasopharynx, and Paranasal Sinuses

Goal: The resident will understand the anatomy and physiology of the nose, nasopharynx and paranasal sinuses and recognize indications for treatment of sinusitis.

Competencies and Objectives:

1. Explain the anatomy of the paranasal sinuses with attention to the osteomeatal complex.
2. Describe the physiology of nasal mucosa.
3. Describe assessment and management of sinusitis
4. Describe the blood supply to the nose and paranasal sinuses.
5. Understand the etiology and pathophysiology of epistaxis and the sequence of maneuvers to stop the episode of epistaxis in the healthy pediatric patient

IV. Head and Neck Anomalies

Goal: The resident will learn the anatomy of the neck and learn to examine the neck and diagnose common simple pediatric neck masses, infections, and trauma.

Competencies and Objectives:

1. Describe the embryology of the neck including the branchial clefts, pouches, and arches.
2. Draw the major arteries, veins, and nerves of the neck.
3. Describe the inflammatory and infectious masses of the head and neck.

B. Patient Care

Goal:

Otolaryngology resident will develop a satisfactory level of diagnostic competence and the ability to provide and effective consultation in the context of pediatric otolaryngology services.

Competencies and Objectives:

1. Learn to obtain a complete and accurate history from patients and parents.
2. Demonstrate appropriate physical exam skills of infants and children.
3. Display respect and empathy toward every patient and parent, including sensitivity to cultural issues.
4. Communicate effectively with patients and their parents.
5. Formulate differential diagnosis and treatment plan for every patient based on all available information.
6. Clearly communicate with each patient and their parents the risks and benefits of treatment options for his/her condition.
7. Use information technology to assist in the management of patients.
8. Use social services in the community to assist in the care of patients.
9. Involve consultants to assist in patient care as needed.
10. Look for problems with patient safety, and examine methods to improve it.
11. Demonstrate skills in cleaning the external ear canal.
12. Demonstrate skills in pneumatic otoscopy.
13. Learn basic proficient surgical skills for mask ventilation.
14. Learn basic proficient surgical skills for intubation.
15. Learn basic proficient surgical skills for direct laryngoscopy.
16. Demonstrate skills in tracheostomy tube change in infants and children.

C. Interpersonal and Communication Skills

Goal: The otolaryngology resident will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health care professionals.

Competencies and Objectives:

1. Educate children and their parents in post operative strategies for therapy.
2. Provide adequate counseling and informed consent to patients/guardians.
3. Listen to patients and their families.

4. Assimilate data and information provided by other members of the health care team.
5. Chart and record accurate information.
6. Work effectively with others including referring physicians, agencies, patients/families and other members of the health care team.
7. Have effective and efficient time management skills.
8. Have the confidence to respectfully challenge those in authority.
9. Have effective and efficient written and verbal communication skills.
10. Maintain comprehensive, timely and legible medical records.

D. Practice-Based Learning and Improvement

Goal: The otolaryngology resident will investigate and evaluate his or her own patient care practices, appraise and assimilate scientific evidence, and improve patient care practices.

Competencies and Objectives:

1. Develop the ability to conduct a complete, clinically appropriate literature search for a pediatric otolaryngology problem.
2. Use technology to access scientific evidence, interpret the data and apply this knowledge to the care of patients.
3. Use mentorship in the clinical and surgical setting effectively.

E. System Based Practice

Goal: The otolaryngology resident will demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide optimal care for the for the infant and child with pediatric otolaryngology problem.

Competencies and Objectives:

1. Coordinate all aspects of care.
2. Advocate for infants and children within the health care system.
3. Facilitate the timely discharge of infants and children.
4. Use systematic approaches to reduce errors and improve patient care.
5. Advocate for quality patient care and improvements in patient care systems.
6. Be aware of Issues of confidentiality, and medico-legal topics related to patient care.
7. Have knowledge of ethical issues and potential conflicts of interest inherent in relationships with pharmaceutical companies.

F. Professionalism

Goal: The otolaryngology resident will demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

Competencies and Objectives:

1. Exhibit an unselfish regard for the welfare of patients.
2. Demonstrate firm adherence to a code of moral and ethical values.
3. Respect infants and children and their families,
4. Respect and appropriately integrate other members of the care team.
5. Provide appropriately prompt consultations when required.
6. Demonstrate sensitivity to the individual patient's cultural family background.
7. Be reliable, punctual, and accountable for own actions in the operating room and the clinic.
8. Recognize limitations and admit errors.
9. Demonstrate respect for patient privacy and autonomy.
10. Be sensitive and responsive to a diverse patient population.
11. Strive for excellence—not to be content with a satisfactory performance.
12. Have the initiative to help get the job done regardless of whose job it is.
13. Complete personal professional duties in a timely manner (i.e., case logs, GME Rocs schedule, dictations, etc).
14. Maintain a professional appearance while carrying out professional responsibilities.
15. Be on time.

**Thoracic Surgery (UPMC Presbyterian or Shadyside) Rotation Specific Educational Goals and Objectives-
Otolaryngology PGY1 Resident**

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health of the patient before and after surgery.	<ul style="list-style-type: none"> To develop knowledge of the assessment procedures to use before and after surgery 	<ul style="list-style-type: none"> Division Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	2. To be able to appropriately prepare the patient for surgery.	<ul style="list-style-type: none"> To properly assess the fitness of the patient through use of appropriate screening methods (e.g. cardiac screening) 	<ul style="list-style-type: none"> Division Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	3. To provide appropriate post-operative care to patient.	<ul style="list-style-type: none"> To track and conduct a proper assessment of patient's condition To be aware of changes in patient condition To be able to coordinate (along with other staff) needed services for patient 	<ul style="list-style-type: none"> Division Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	4. To become proficient in the delivery of basic patient care/ management skills	<ul style="list-style-type: none"> To be able to provide: <ul style="list-style-type: none"> Wound care Tracheostomy care Chest tube care Pigtail catheter care Drain care 	<ul style="list-style-type: none"> Ward Rounds Didactic teaching 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation

		<ul style="list-style-type: none"> • To be able to insert and remove: <ul style="list-style-type: none"> ○ Foley catheter ○ Peripheral IV ○ Central line ○ Chest tube ○ Pigtail catheter • Assess and manage pulmonary status before and after thoracic procedures • To develop knowledge of the appropriate use of laboratories, radiologic studies, and endoscopic studies during the diagnosis, counseling, and management of patients with thoracic and foregut disorders 		<ul style="list-style-type: none"> • Direct Observation and Attending Feedback
	5. To be competent in providing basic surgical procedures	<ul style="list-style-type: none"> • To be able to perform: <ul style="list-style-type: none"> ○ Skin closure ○ Bronchoscopy ○ Upper endoscopy ○ Tracheostomy 	<ul style="list-style-type: none"> • Open Skills Curriculum • Division Conference • Didactic Teaching • Operative Teaching 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	6. To gain familiarity with the use of surgical equipment as well as gain competence in use of technical skills	<ul style="list-style-type: none"> • To demonstrate gradual acquisition of basic surgical skills such as: <ul style="list-style-type: none"> ○ Tie knots ○ Simple suturing ○ Incise tissue ○ Handle tissue gently ○ Handle and manipulate 	<ul style="list-style-type: none"> • Open skills Curriculum • Operative teaching • Ward Rounds • Cadaver lab 	<ul style="list-style-type: none"> • Global Faculty Evaluation • Direct Observation and Attending Feedback

		instruments		
Medical Knowledge	1. To develop a fund of knowledge concerning fundamental surgical principles and underlying anatomy	<ul style="list-style-type: none"> • To recognize: <ul style="list-style-type: none"> ○ Preoperative evaluation/risk assessment ○ Antibiotic prophylaxis ○ Fluid therapy ○ Use of pulmonary function testing ○ Interpretation of chest x-ray, CT imaging, contrast esophagogram, and PET scan ○ Preoperative nutrition ○ Principles of postoperative management • To recognize the steps of surgery upon and relevant anatomy of: <ul style="list-style-type: none"> ○ Lung ○ Esophagus ○ Tracheobronchial tree 	<ul style="list-style-type: none"> • Division Conference • Didactic Teaching • Operative Teaching • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	1. To gain knowledge about the evaluation and care of the patient	<ul style="list-style-type: none"> • To develop knowledge of diagnosis and treatment options of such conditions as: <ul style="list-style-type: none"> ○ Gastroesophageal reflux ○ Neoplasms of the lung ○ Hiatal and paraesophageal hernias ○ Pleural effusions ○ Esophageal neoplasms 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback

		<ul style="list-style-type: none"> ○ Swallowing disorders 		
	3. Develop familiarity about the concepts and uses behind surgical equipment	<ul style="list-style-type: none"> ● To recognize and know the usage of different surgical instruments, catheters, needles, and sutures 	<ul style="list-style-type: none"> ● Didactic teaching ● Operative teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
Practice-based learning and improvement	1. To be able to critique one's day to day practice	<ul style="list-style-type: none"> ● To be able to self-direct learning as a result of input received critiquing one's own daily practice ● Obtain and use information about one's own patients and the larger population from which they are drawn ● Use information technology to manage information, access on-line medical information, and support one's own education 	<ul style="list-style-type: none"> ● Morbidity and Mortality Conference ● Ward Rounds ● Operative teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Global faculty evaluation ● Direct Observation and Attending Feedback ● Self-evaluations
Interpersonal and communication skills	1. To be able to communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	<ul style="list-style-type: none"> ● To appropriately gather necessary information from patients ● Explain relevant information to patients and families 	<ul style="list-style-type: none"> ● Ward Rounds ● Outpatient clinic ● Family and patient care conference 	<ul style="list-style-type: none"> ● Direct observation and attending feedback ● Peer/staff evaluations ● Patient evaluations ● Global faculty evaluation
	2. To be able to effectively	<ul style="list-style-type: none"> ● Clearly communicates intentions 	<ul style="list-style-type: none"> ● Ward Rounds ● Outpatient clinic 	<ul style="list-style-type: none"> ● Direct observation and attending

	communicate with peers, allied health professionals, and the general public	<ul style="list-style-type: none"> • Respond to requests from peers • Transfer necessary information to team members 	<ul style="list-style-type: none"> • Family and patient care conference 	<p>feedback</p> <ul style="list-style-type: none"> • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
Professionalism	1. To maintain a sense of professional integrity between colleagues and patients and their families.	<ul style="list-style-type: none"> • To be able to demonstrate: <ul style="list-style-type: none"> ○ Ethical behavior towards between patients and colleagues ○ Respect toward colleagues and patients and their families ○ A commitment to ethical principles pertaining to patient privacy and autonomy, the provision or withholding of clinical care, confidentiality of patient information, informed consent, conflict of interest, and business practices ○ Openness about one's intentions • To be responsible and accountable for one's own actions • To be courteous toward colleagues and patients 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Didactic teaching • Outpatient clinic • Morbidity and Mortality conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Global faculty evaluation • Peer/staff evaluations • Patient evaluations

		<p>and their families</p> <ul style="list-style-type: none"> • To be sensitive and responsive to the patient's culture, age, gender, and disabilities 		
<p>Systems-based practice</p>	<p>1. To have an awareness of how one's own practice interfaces with the institution in which one practices</p>	<ul style="list-style-type: none"> • To be knowledgeable about: <ul style="list-style-type: none"> ○ The function of the system ○ The relationship between the system and one's own practice ○ Practice-based outcomes ○ System expectations • Assist patients and their families in dealing with system complexities • Incorporate considerations of cost-awareness and risk-benefit analysis into day to day practice 	<ul style="list-style-type: none"> • Case Conference • Ward Rounds • Didactic teaching • Outpatient clinic 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Global faculty evaluation • Peer/staff evaluations • Patient evaluations

**Neurosurgery (UPMC Presbyterian or Shadyside) Rotation Specific Educational Goals and Objectives –
Otolaryngology PGY1 Resident**

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health of the patient before and after surgery.	<ul style="list-style-type: none"> To become proficient at obtaining a pertinent clinical history from neurosurgical patients To become proficient at conducting a thorough neurological examination To recognize the indications for CT and MR imaging of the brain and spinal cord To recognize the indications for lumbar puncture and cerebrospinal fluid sampling 	<ul style="list-style-type: none"> Division Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	2. To be able to appropriately prepare the patient for surgery.	<ul style="list-style-type: none"> To properly assess the fitness of the patient through use of appropriate screening methods (e.g. cardiac screening) 	<ul style="list-style-type: none"> Division Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	3. To provide appropriate post-operative care to patient.	<ul style="list-style-type: none"> To track and conduct a proper assessment of patient's condition To be aware of changes in patient condition To be able to coordinate (along with other staff) needed services for 	<ul style="list-style-type: none"> Division Conference Didactic teaching Outpatient Clinic Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback

		patient		
	4. To become proficient in the delivery of basic patient care/ management skills	<ul style="list-style-type: none"> • To be able to provide: <ul style="list-style-type: none"> ○ Wound care ○ Care of external CSF drains • To be able to insert and remove: <ul style="list-style-type: none"> ○ Foley catheter ○ Peripheral IV • Assess neurological status after neurosurgical procedures • To demonstrate knowledge of the appropriate use of laboratories, radiologic studies, neurophysiologic, and other studies during the diagnosis, counseling, and management of patients with neurosurgical disorders 	<ul style="list-style-type: none"> • Ward Rounds • Didactic teaching 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	5. To be competent in providing basic surgical procedures	<ul style="list-style-type: none"> • To be able to perform minor procedures such as: <ul style="list-style-type: none"> ○ Skin closure 	<ul style="list-style-type: none"> • Open Skills Curriculum • Division Conference • Didactic Teaching • Operative Teaching 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	6. To gain familiarity with the use of surgical equipment as well as gain competence in use	<ul style="list-style-type: none"> • To demonstrate gradual acquisition of basic surgical skills such as: <ul style="list-style-type: none"> ○ Tie knots ○ Simple suturing 	<ul style="list-style-type: none"> • Open skills Curriculum • Operative teaching • Ward Rounds 	<ul style="list-style-type: none"> • Global Faculty Evaluation • Direct Observation and Attending Feedback

	of technical skills	<ul style="list-style-type: none"> ○ Incise tissue ○ Handle tissue gently ○ Handle and manipulate instruments 	<ul style="list-style-type: none"> ● Cadaver lab 	
Medical Knowledge	1. To develop a fund of knowledge concerning fundamental surgical principles and underlying anatomy	<ul style="list-style-type: none"> ● To recognize: <ul style="list-style-type: none"> ○ Preoperative evaluation/risk assessment ○ Antibiotic prophylaxis ○ Fluid therapy ○ Use of CT and MR imaging in neurosurgical patients 	<ul style="list-style-type: none"> ● Division Conference ● Didactic Teaching ● Operative Teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
	1. To gain knowledge about the evaluation and care of the patient	<ul style="list-style-type: none"> ● To demonstrate knowledge of the diagnosis and treatment options of such conditions as: <ul style="list-style-type: none"> ○ Tumors ○ Aneurysms ○ Increased intracranial pressure ○ Spinal cord compression ○ Disc disease 	<ul style="list-style-type: none"> ● Division Conference ● Didactic teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
	3. Develop familiarity about the concepts and uses behind surgical equipment	<ul style="list-style-type: none"> ● To recognize and know the usage of different surgical instruments, catheters, needles, and sutures 	<ul style="list-style-type: none"> ● Didactic teaching ● Operative teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
Practice-based learning and	1. To be able to critique one's day	<ul style="list-style-type: none"> ● To be able to self-direct learning as a result of 	<ul style="list-style-type: none"> ● Morbidity and Mortality 	<ul style="list-style-type: none"> ● Global faculty evaluation

improvement	to day practice	<p>input received critiquing one's own daily practice</p> <ul style="list-style-type: none"> • Obtain and use information about one's own patients and the larger population from which they are drawn • Use information technology to manage information, access on-line medical information, and support one's own education 	<p>Conference</p> <ul style="list-style-type: none"> • Ward Rounds • Operative teaching • Outpatient clinic 	<ul style="list-style-type: none"> • Direct Observation and Attending Feedback • Self-evaluations
Interpersonal and communication skills	1. To be able to communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	<ul style="list-style-type: none"> • To appropriately gather necessary information from patients • Explain relevant information to patients and families 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
	2. To be able to effectively communicate with peers, allied health professionals, and the general public	<ul style="list-style-type: none"> • Clearly communicates intentions • Respond to requests from peers • Transfer necessary information to team members 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
Professionalism	1. To maintain a sense of professional integrity between colleagues and	<ul style="list-style-type: none"> • To be able to demonstrate: <ul style="list-style-type: none"> ○ Ethical behavior toward patients and 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Didactic teaching • Outpatient clinic 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Global faculty

	patients and their families.	<ul style="list-style-type: none"> colleagues ○ Respect toward colleagues and patients and their families ○ A commitment to ethical principles pertaining to patient privacy and autonomy, the provision or withholding of clinical care, confidentiality of patient information, informed consent, conflict of interest, and business practices ○ Openness about one's intentions ● To be responsible and accountable for one's own actions ● To be courteous toward colleagues and patients and their families ● To be sensitive and responsive to the patient's culture, age, gender, and disabilities 	<ul style="list-style-type: none"> ● Morbidity and Mortality conference 	<ul style="list-style-type: none"> evaluation ● Peer/staff evaluations ● Patient evaluations
Systems-based practice	1. To have an awareness of how one's own practice interfaces with the institution in which one practices	<ul style="list-style-type: none"> ● To be knowledgeable about: <ul style="list-style-type: none"> ○ The function of the system ○ The relationship between the system and one's own 	<ul style="list-style-type: none"> ● Case Conference ● Ward Rounds ● Didactic teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Direct observation and attending feedback ● Global faculty evaluation ● Peer/staff evaluations

		<p>practice</p> <ul style="list-style-type: none">○ Practice-based outcomes○ System expectations● Assist patients and their families in dealing with system complexities● Incorporate considerations of cost-awareness and risk-benefit analysis into day to day practice		<ul style="list-style-type: none">● Patient evaluations
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Anesthesia Rotation Specific Educational Goals and Objectives – Otolaryngology PGY1 Resident

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health of the patient before and after surgery (Anesth).	<ul style="list-style-type: none"> • To demonstrate knowledge of the assessment procedures to use before and after surgery in order to determine the patient's fitness for anesthesia 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic 	<ul style="list-style-type: none"> • Exit examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	2. To be able to appropriately prepare the patient for surgery (Anesth).	<ul style="list-style-type: none"> • To properly assess the fitness of the patient through use of appropriate screening methods (e.g. cardiac screening) 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Operative teaching 	<ul style="list-style-type: none"> • Exit examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	3. To provide appropriate intraoperative care to patient (Anesth).	<ul style="list-style-type: none"> • To track and conduct a proper assessment of patient's condition throughout the operative procedure • To be aware of changes in patient condition • To be able to coordinate (along with other staff) needed services for patient 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Operative teaching 	<ul style="list-style-type: none"> • Exit examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	4. To provide satisfactory management of postoperative pain	<ul style="list-style-type: none"> • To track and conduct proper assessment of the patient's pain control postoperatively, and make appropriate adjustments to treatment regimen 	<ul style="list-style-type: none"> • Didactic conferences • Ward rounds 	<ul style="list-style-type: none"> • Direct Observation and Attending Feedback • Global Faculty Evaluation
	5. To become	<ul style="list-style-type: none"> • To be able to: 	<ul style="list-style-type: none"> • Operative 	<ul style="list-style-type: none"> • Exit examination

	proficient in the delivery of basic patient care/ management skills (Anesth)	<ul style="list-style-type: none"> ○ Intubate ○ Administer and monitor IV sedation ○ Place regional blocks ● To be able to insert and remove: <ul style="list-style-type: none"> ○ Arterial catheter ○ Peripheral IV ○ Central line ○ Nasogastric tube ● To demonstrate knowledge of the appropriate use of laboratories in evaluation of patient's for anesthesia 	<p>teaching</p> <ul style="list-style-type: none"> ● Didactic teaching 	<ul style="list-style-type: none"> ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
	6. To gain familiarity with the use of anesthesia	<ul style="list-style-type: none"> ○ To demonstrate knowledge of management of ventilators and inhalation agents. 	<ul style="list-style-type: none"> ● Operative teaching 	<ul style="list-style-type: none"> ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
Medical Knowledge	1. To develop a fund of knowledge concerning fundamental anesthesia principles	<ul style="list-style-type: none"> ● To demonstrate knowledge of : <ul style="list-style-type: none"> ○ Preanesthesia evaluation/risk assessment ○ Pharmacology of anesthetic agents ○ prophylaxis ○ Intraoperative fluid management ○ Use of monitoring devices in the operating room ● To demonstrate knowledge of the steps of anesthesia related 	<ul style="list-style-type: none"> ● Departmental Conference ● Didactic Teaching ● Operative Teaching 	<ul style="list-style-type: none"> ● Exit examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback

		<p>procedures and relevant anatomy such as:</p> <ul style="list-style-type: none"> ○ Endotracheal intubation ○ LMA ○ Regional blocks 		
	<p>2. To gain knowledge about the evaluation and care of the patient</p>	<ul style="list-style-type: none"> ● To demonstrate knowledge of options for anesthesia management such as: <ul style="list-style-type: none"> ○ General anesthesia ○ Regional anesthesia ○ Local anesthesia ● To demonstrate knowledge of options for post-operative pain management <ul style="list-style-type: none"> ○ PCA ○ Regional blocks (epidural, paravertebral) 	<ul style="list-style-type: none"> ● Division Conference ● Didactic teaching ● Ward Rounds ● Operative teaching 	<ul style="list-style-type: none"> ● Exit examination ● ABSITE Examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
	<p>3. Develop familiarity about the concepts and uses behind anesthesia equipment</p>	<ul style="list-style-type: none"> ● To recognize and know the usage of different monitoring and treatment devices (e.g. rapid infuser) 	<ul style="list-style-type: none"> ● Didactic teaching ● Operative teaching ● Ward Rounds 	<ul style="list-style-type: none"> ● Exit examination ● Global Faculty Evaluation ● Direct Observation and Attending Feedback
<p>Practice-based learning and improvement</p>	<p>1. To be able to critique one's day to day practice</p>	<ul style="list-style-type: none"> ● To be able to self-direct learning as a result of input received critiquing one's own daily practice ● Obtain and use information about one's own patients and the larger population from which they are drawn ● Use information 	<ul style="list-style-type: none"> ● Morbidity and Mortality Conference ● Ward Rounds ● Operative teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Global faculty evaluation ● Direct Observation and Attending Feedback ● Self-evaluations

		technology to manage information, access on-line medical information, and support one's own education		
Interpersonal and communication skills	1. To be able to communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	<ul style="list-style-type: none"> • To appropriately gather necessary information from patients • Explain relevant information to patients and families 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
	2. To be able to effectively communicate with peers, allied health professionals, and the general public	<ul style="list-style-type: none"> • Clearly communicates intentions • Respond to requests from peers • Transfer necessary information to team members 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
Professionalism	1. To maintain a sense of professional integrity between colleagues and patients and their families.	<ul style="list-style-type: none"> • To be able to demonstrate: <ul style="list-style-type: none"> ○ Ethical behavior toward patients and colleagues ○ Respect toward colleagues and patients and their families ○ A commitment to ethical principles pertaining to patient 	<ul style="list-style-type: none"> • Ward Rounds • Outpatient clinic • Didactic teaching • Outpatient clinic • Morbidity and Mortality conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Global faculty evaluation • Peer/staff evaluations • Patient evaluations

		<p>privacy and autonomy, the provision or withholding of clinical care, confidentiality of patient information, informed consent, conflict of interest, and business practices</p> <ul style="list-style-type: none"> ○ Openness about one's intentions ● To be responsible and accountable for one's own actions ● To be courteous toward colleagues and patients and their families ● To be sensitive and responsive to the patient's culture, age, gender, and disabilities 		
Systems-based practice	<p>1. To have an awareness of how one's own practice interfaces with the institution in which one practices</p>	<ul style="list-style-type: none"> ● To be knowledgeable about: <ul style="list-style-type: none"> ○ The function of the system ○ The relationship between the system and one's own practice ○ Practice-based outcomes ○ System expectations ● Assist patients and their families in dealing with system complexities ● Incorporate 	<ul style="list-style-type: none"> ● Case Conference ● Ward Rounds ● Didactic teaching ● Outpatient clinic 	<ul style="list-style-type: none"> ● Direct observation and attending feedback ● Global faculty evaluation ● Peer/staff evaluations ● Patient evaluations

		considerations of cost-awareness and risk-benefit analysis into day to day practice		
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Critical Care Medicine Rotation Specific Educational Goals and Objectives – Otolaryngology PGY1 Resident

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health of the critically ill patient	<ul style="list-style-type: none"> • To perform a thorough physical examination of the critically ill patient, and when possible obtain a detailed history • To correctly interpret physiologic parameters of critical illness 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	2. To provide appropriate management of the critically ill patient.	<ul style="list-style-type: none"> • To develop an appropriate differential diagnosis • To develop diagnostic strategies • To select therapeutic interventions, and to monitor the patient's response to these interventions To be able to coordinate (along with other staff) needed services for patient 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	3. To become proficient in the ICU procedures	<ul style="list-style-type: none"> • To be able to <ul style="list-style-type: none"> ○ Perform awake and urgent intubations • To be able to insert and remove: <ul style="list-style-type: none"> ○ Foley catheter ○ Peripheral IV ○ Central line ○ Arterial line ○ Pulmonary artery catheter 	<ul style="list-style-type: none"> • Ward Rounds • Didactic teaching • WISER center 	<ul style="list-style-type: none"> • Exit examination • Global Faculty Evaluation • Direct Observation and Attending Feedback

Medical Knowledge	1. To develop a fund of knowledge concerning the physiologic parameters of acute illness	<ul style="list-style-type: none"> • To recognize: <ul style="list-style-type: none"> ○ Hemodynamic measurements and alterations in critical illness ○ Pulmonary function and alterations in acute illness ○ Renal insufficiency ○ Surgical infection 	<ul style="list-style-type: none"> • Division Conference • Didactic Teaching • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	2. To gain knowledge about the evaluation and care of the patient	<ul style="list-style-type: none"> • To recognize diagnosis and treatment options of such conditions as: <ul style="list-style-type: none"> ○ Hemodynamic instability ○ Arrhythmias ○ Respiratory insufficiency ○ Renal insufficiency ○ Systemic and localized infection ○ Nutritional requirements in acute illness 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
Practice-based learning and improvement	1. To be able to critique one's day to day practice	<ul style="list-style-type: none"> • To be able to self-direct learning as a result of input received critiquing one's own daily practice • Obtain and use information about one's own patients and the larger population from which they are drawn • Use information technology to manage information, access on- 	<ul style="list-style-type: none"> • Morbidity and Mortality Conference • Ward Rounds 	<ul style="list-style-type: none"> • Global faculty evaluation • Direct Observation and Attending Feedback • Self-evaluations

		line medical information, and support one's own education		
Interpersonal and communication skills	1. To be able to communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	<ul style="list-style-type: none"> • To appropriately gather necessary information from patients • Explain relevant information to patients and families 	<ul style="list-style-type: none"> • Ward Rounds • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
	2. To be able to effectively communicate with peers, allied health professionals, and the general public	<ul style="list-style-type: none"> • Clearly communicates intentions • Respond to requests from peers • Transfer necessary information to team members 	<ul style="list-style-type: none"> • Ward Rounds • Family and patient care conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
Professionalism	1. To maintain a sense of professional integrity between colleagues and patients and their families.	<ul style="list-style-type: none"> • To be able to demonstrate: <ul style="list-style-type: none"> ○ Ethical behavior toward patients and colleagues ○ Respect toward colleagues and patients and their families ○ A commitment to ethical principles pertaining to patient privacy and autonomy, the 	<ul style="list-style-type: none"> • Ward Rounds • Didactic teaching • Morbidity and Mortality conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Global faculty evaluation • Peer/staff evaluations • Patient evaluations

		<p>provision, withholding, or withdrawal of clinical care, confidentiality of patient information, informed consent, conflict of interest, and business practices</p> <ul style="list-style-type: none"> ○ Openness about one's intentions ● To be responsible and accountable for one's own actions ● To be courteous toward colleagues and patients and their families ● To be sensitive and responsive to the patient's culture, age, gender, and disabilities 		
Systems-based practice	1. To have an awareness of how one's own practice interfaces with the institution in which one practices	<ul style="list-style-type: none"> ● To be knowledgeable about: <ul style="list-style-type: none"> ○ The collaborative practice style that applies to the ICU setting ○ The function of the system ○ The relationship between the system and one's own practice ○ Practice-based outcomes 	<ul style="list-style-type: none"> ● Case Conference ● Ward Rounds ● Didactic teaching 	<ul style="list-style-type: none"> ● Direct observation and attending feedback ● Global faculty evaluation ● Peer/staff evaluations ● Patient evaluations

		<ul style="list-style-type: none">○ System expectations● Assist patients and their families in dealing with system complexities● Incorporate considerations of cost-awareness and risk-benefit analysis into day to day practice		
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Pediatric Surgery Rotation Specific Educational Goals and Objectives – Otolaryngology PGY1 Resident

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health of the pediatric patient before and after surgery.	<ul style="list-style-type: none"> • To demonstrate knowledge of the assessment procedures to use before and after surgery 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	2. To be able to appropriately prepare the pediatric patient for surgery.	<ul style="list-style-type: none"> • To properly assess the fitness of the pediatric patient through use of appropriate screening methods 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	3. To provide appropriate post-operative care to the pediatric patient.	<ul style="list-style-type: none"> • To track and conduct a proper assessment of patient's condition • To be aware of changes in patient condition • To be able to coordinate (along with other staff and consultants) needed services for patient 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	4. To become familiar with the management of pediatric trauma	<ul style="list-style-type: none"> • To be able to provide: Initial trauma assessment Resuscitation Recognition of surgical indications Appropriate use of invasive and radiologic tests 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending

		Being a part of a trauma team		Feedback
	5. To become proficient in the delivery of basic pediatric patient care/ management skills	<ul style="list-style-type: none"> • To be able to provide: Comprehensive exam Measurement of nutritional status Wound care Central line care Feeding tube care • To be able to insert and remove: <ul style="list-style-type: none"> ○ Foley catheter ○ Peripheral IV 	<ul style="list-style-type: none"> • Ward Rounds • Didactic teaching 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	6. To be competent in providing basic surgical procedures	<ul style="list-style-type: none"> • To be able to perform: <ul style="list-style-type: none"> ○ Excisional biopsy ○ Repair of umbilical hernia ○ Repair of inguinal hernia ○ Insertion of central line ○ Appendectomy 	<ul style="list-style-type: none"> • Open Skills Curriculum • Division Conference • Didactic Teaching • Operative Teaching 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	7. To gain familiarity around the use of surgical equipment as well as gain competence in use of technical skills	<ul style="list-style-type: none"> • To demonstrate gradual acquisition of basic surgical skills such as: Tie knots Simple suturing Incise tissue Handle tissue gently Handle and manipulate instruments 	<ul style="list-style-type: none"> • Open skills Curriculum • Operative teaching • Ward Rounds • Cadaver lab 	<ul style="list-style-type: none"> • Global Faculty Evaluation • Direct Observation and Attending Feedback
Medical Knowledge	To develop a fund of knowledge concerning fundamental pediatric surgical principles and	<ul style="list-style-type: none"> • To recognize: Preoperative evaluation/risk assessment Antibiotic prophylaxis Fluid therapy 	<ul style="list-style-type: none"> Division Conference Didactic Teaching Operative Teaching Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation

	underlying anatomy	<p>Use of CT imaging Preoperative nutrition Principles of postoperative management Resuscitation and care of the multiply injured child</p> <ul style="list-style-type: none"> To recognize the steps of and relevant anatomy of: Hernia repair both inguinal and ventral Appendectomy Central line placement 		and Attending Feedback
	To gain knowledge about the evaluation and care of the patient	<ul style="list-style-type: none"> To demonstrate knowledge of diagnosis and treatment options of such conditions as: Acute appendicitis Congenital diaphragmatic hernia GERD Hirschsprung's disease Imperforate anus Intussusception TE fistula Malrotation Pediatric tumors Short Gut Syndrome Inguinal hernias Pediatric trauma Omphalocele Gastroschisis Pyloric stenosis 	<p>Division Conference Didactic teaching Ward Rounds</p>	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty Evaluation Direct Observation and Attending Feedback
	Develop familiarity about the concepts and uses behind pediatric surgical	<ul style="list-style-type: none"> To recognize and know the usage of different surgical instruments, catheters, needles, and 	<ul style="list-style-type: none"> Didactic teaching Operative teaching Ward Rounds 	<ul style="list-style-type: none"> Exit examination ABSITE Examination Global Faculty

	equipment	sutures		<p>Evaluation</p> <ul style="list-style-type: none"> • Direct Observation and Attending Feedback
Practice-based learning and improvement	To be able to critique one's day to day practice	<p>To be able to self-direct learning as a result of input received critiquing one's own daily practice</p> <p>Obtain and use information about one's own patients and the larger population from which they are drawn</p> <p>Use information technology to manage information, access on-line medical information, and support one's own education</p>	<ul style="list-style-type: none"> • Morbidity and Mortality Conference • Ward Rounds • Operative teaching • Outpatient clinic 	<ul style="list-style-type: none"> • Global faculty evaluation • Direct Observation and Attending Feedback • Self-evaluations
Interpersonal and communication skills	1. To be able to communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	<ul style="list-style-type: none"> • To appropriately gather necessary information from patients • Explain relevant information to patients and families 	<p>Ward Rounds</p> <p>Outpatient clinic</p> <p>Family and patient care conference</p>	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
	2. To be able to effectively communicate with peers, allied health professionals, and the general public	<p>Clearly communicates intentions</p> <p>Respond to requests from peers</p> <p>Transfer necessary information to team members</p>	<p>Ward Rounds</p> <p>Outpatient clinic</p> <p>Family and patient care conference</p>	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation

Professionalism	To maintain a sense of professional integrity between colleagues and patients and their families.	<ul style="list-style-type: none"> • To be able to demonstrate: <ul style="list-style-type: none"> ○ Ethical behavior toward patients and colleagues ○ Respect toward colleagues and patients and their families ○ A commitment to ethical principles pertaining to patient privacy and autonomy, the provision or withholding of clinical care, confidentiality of patient information, informed consent, conflict of interest, and business practices ○ Openness about one's intentions <p>To be responsible and accountable for one's own actions</p> <p>To be courteous toward colleagues and patients and their families</p> <p>To be sensitive and responsive to the patient's culture, age, gender, and disabilities</p>	Ward Rounds Outpatient clinic Didactic teaching Outpatient clinic Morbidity and Mortality conference	Direct observation and attending feedback Global faculty evaluation Peer/staff evaluations Patient evaluations
Systems-based practice	To have an awareness of how one's own practice interfaces with the institution	<p>To be knowledgeable about:</p> <ul style="list-style-type: none"> ○ The function of the system ○ The relationship 	Case Conference Ward Rounds Didactic teaching Outpatient clinic	Direct observation and attending feedback Global faculty evaluation

	in which one practices	between the system and one's own practice <ul style="list-style-type: none">○ Practice-based outcomes○ System expectations Assist patients and their families in dealing with system complexities Incorporate considerations of cost-awareness and risk-benefit analysis into day to day practice		Peer/staff evaluations Patient evaluations
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OTOLARYNGOLOGY II: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
OTOLOGY

I Medical Knowledge

1. Know the embryology of the ear and temporal bone.
2. Know the anatomy and physiology of pathways for auditory, vestibular and facial function.
3. Know anatomy of the temporal bone through reading, lectures and hands-on experience in the temporal bone laboratory.
4. Understand the anatomy of the Eustachian tube and sequela from dysfunction.
5. Be able to interpret audiograms, acoustic reflexes, tympanometry, otoacoustic emissions and brain stem evoked audiometry.
6. Know the classification systems for grading facial paralysis.
7. Be able to describe tympanomastoid surgery (canal wall-up, canal wall-down, radical).
8. Know the classification for describing tympanoplasty.
9. Identify critical structures and interpret MRI and CT images of the skull base and temporal bone.
10. Participate in and contribute to the neurotology lecture series.

II Patient Care and Skills

1. Through appropriate history taking and physical diagnosis be able to evaluate patients complaining of hearing loss, tinnitus, dizziness, or facial weakness.
2. Be competent in identifying a normal tympanic membrane and common pathology including otitis externa, serous otitis media, tympanic membrane perforation and cholesteatoma.
3. Understand the use and interpretation of tuning fork testing.
4. Assess the nasopharynx by fiberoptic endoscopy.
5. Perform a Dix-Hallpike test and a particle-repositioning maneuver.
6. Administer eye care for facial paralysis patients.
7. Have basic surgical skills for the following procedures:
 - a. Use of operating microscope
 - b. Removal of cerumen impaction
 - c. Placement of external canal wicks
 - d. Placement of myringotomy tubes in patients under general anesthesia
8. Be able to inject a local anesthetic into the EAC and perform necessary skin incisions and closures for most otologic approaches and a complete mastoidectomy.
9. Provide appropriate history, physical examination, assessment and plan documentation in the electronic medical record.
10. Understand the use of the electronic medical record.

III Professionalism

1. Demonstrate compassion and respect for patients and family members.
2. Establish open lines of communication with patients and family members to ensure patient concerns are addressed.
3. Be sensitive to the confidential needs of patients. When in their presence, conduct discussions of medical findings, management, and other interactions in a professional manner.
4. Achieve and maintain the respect of the faculty, nursing staff and co-residents.
5. See patients and consults in a gracious and timely manner.
6. Practice strict adherence to hand washing, cleanliness, and infection control principles when

examining patients.

IV Practice-based Learning and Improvement

1. Continuously reappraise surgical and clinical otology treatment algorithms through daily small team discussion on rounds and in clinic/surgery setting.
2. Critically assess surgical outcomes and present outcomes at multidisciplinary morbidity and mortality conferences.
3. Know current evidence for otology practice
4. Evaluate surgical skills on selected case-by-case analysis with written attending feedback.
5. Obtain oral assessment of clinical and surgical performance from faculty.
6. Evaluate otology general knowledge through the yearly written in-service exam.
7. While on the otology service, an audiology lecture series follows with an exam to provide a self assessment tool of learning.
8. Educate medical students and other healthcare professionals in the medical and surgical practice of otology.

V Systems-Based Practice

1. Effectively use the UPMC electronic medical record system to include data review, order entry, and completion of clinical notes.
2. Expediently complete administrative requirements such as written post-operative notes, progress notes, and discharge summaries.
3. Complete all inpatient and outpatient documentation that may include history and physical notes, progress notes, orders, and consultation requests.
4. Assist in the coordination of pre-operative surgical scheduling.
5. Coordinate appropriate patient appointments for otology, audiology, and vestibular services.
6. Coordinate appropriate patient care with other health care services.
7. Ensure otology consultations are completed in a timely manner consistent with UPMC and the Department of Otolaryngology “Best Practices” Algorithm.
8. Participate in the monthly multidisciplinary cochlear implant team meeting to optimize patient care
9. Coordinate needs and recommendations from other medical and surgical disciplines to optimize patient management.

VI Interpersonal and Communication Skills

1. Communicate effectively with patients and their families
2. Communicate effectively and interact with other members of the otology health care team
3. Communicate effectively with primary care and other health care practitioners desiring otology consultation.
4. Complete several Neurotology “chapter” presentations to attending neurotologists and house staff while on service.
5. Be sensitive to the confidential needs of patients. When in their presence, conduct discussion of medical findings, management and other interactions in a professional and reassuring manner.

OTOLARYNGOLOGY V: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
OTOLOGY

I Medical Knowledge

1. Review and understand the information base required of first year otology residents.
2. Know anatomy of the temporal bone through reading, Dr. Sando's lectures and hands-on experience in the temporal bone laboratory.
3. Understand the anatomy of the Eustachian tube and sequela from dysfunction.
4. Identify critical structures and the interpret MRI and CT images of the skull base and temporal bone.
5. Through appropriate history taking and physical diagnosis be able to develop a detailed differential diagnosis for otologic and neurotologic complaints. Propose a reasonable treatment plan for patients complaining of hearing loss, tinnitus or dizziness.
6. Be knowledgeable regarding appropriate hearing aid amplification and different amplification devices available (analog, digital, CROS, BICROS).
7. Know the indications, candidate criteria, and expectations of BAHA and cochlear implant devices.
8. Be able to interpret standard vestibular testing (ENG, Rotational Chair) as well as ECoG, ENOG, otoacoustic emissions, and facial EMG results.
9. Be a resource for the first year resident regarding educational opportunities within the division of otology including audiology, vestibular lab, temporal bone lab, cochlear implant and neurotology conferences.

II Patient Care and Skills

1. Be competent in identifying a normal tympanic membrane and common pathology including otitis externa, serous otitis media, tympanic membrane perforation and cholesteatoma.
2. Understand the use and interpretation of tuning fork testing.
3. Perform a Dix-Hallpike test and a particle-repositioning maneuver.
4. Be competent in recognizing common and subtle pathologic changes of the EAC, tympanic membrane and middle ear.
5. Formulate a treatment plan for patients with various degrees of conductive, sensorineural and mixed hearing loss.
6. Provide a differential diagnosis and treatment plan for patients complaining of dizziness.
7. Provide a differential diagnosis and treatment plan for patients presenting with facial palsy.
8. Have basic surgical skills for the following procedures:
 - a. Use of operating microscope
 - b. Removal of cerumen impaction and mastoid cavity debridement
 - c. Placement of myringotomy tubes in patients in the clinic
 - d. Tympanomeatal flap elevation for transcanal procedures
 - e. Facial recess approach
 - f. Canal wall down mastoidectomy
 - g. Tympanoplasty (medial and lateral technique)
 - h. Labyrinthectomy
 - i. Middle ear ossiculoplasty
 - j. Use of lasers in otologic surgery
9. Understand and deliver appropriate postoperative care for common otologic/neurotologic procedures including stapedectomy, cochlear implants, tympanoplasty/tympanomastoidectomy, and acoustic tumor surgery.
10. Be able to identify and provide a reasonable management plan for cerebrospinal fluid leaks.

11. Provide appropriate history, physical examination, assessment and plan documentation in the electronic medical record.

III Professionalism

1. Demonstrate compassion and respect for patients and family members.
2. Establish open lines of communication with patients and family members to ensure patient concerns are addressed.
3. Be sensitive to the confidential needs of patients. When in their presence, conduct discussions of medical findings, management, and other interactions in a professional manner.
4. Achieve and maintain the respect of the faculty, nursing staff and co-residents.
5. Be responsible for seeing consultations in a timely manner, assisting the second year resident with bedside consultations and presenting a plan for work-up and treatment to the attending.
6. Provide mentoring to younger residents and medical students for appropriate demeanor and responsibility.

IV Practice-based Learning and Improvement

1. Continuously reappraise surgical and clinical otology treatment algorithms while leading daily small team discussion on rounds and in clinic/surgery setting.
2. Critically assess surgical outcomes and present outcomes at multidisciplinary morbidity and mortality conferences.
3. Know current evidence for otology practice
4. Evaluate surgical skills on selected case-by-case analysis with written attending feedback.
5. Evaluate otology general knowledge through yearly written in-service exam and otology mock oral board review. While on otology service, an audiology test is also provided as a self-assessment tool.
6. Enhance understanding of cochlear implant indications, complications, and rehabilitation options at the monthly cochlear implant conference.
7. Educate junior residents, other health care providers and medical students in the field and practice of otology.
8. Practice in and appreciate the value of outcome studies as they apply to the diagnosis and treatment of otologic pathology and procedures.
9. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with otologic disorders.

V Systems-Based Practice

1. Effectively use the UPMC electronic medical record system to include data review, order entry, and completion of clinical notes.
2. Expeditiously complete administrative requirements such as written post-operative notes, progress notes, and discharge summaries.
3. Complete all inpatient and outpatient documentation that may include history and physical notes, progress notes, orders, and consultation requests.
4. Assist in the coordination of pre-operative surgical scheduling.
5. Coordinate appropriate patient appointments for otology, audiology, and vestibular services.
6. Coordinate appropriate patient care with other health care services.
7. Ensure otology consultations are completed in a timely manner consistent with UPMC and the Department of Otolaryngology “Best Practices” Algorithm.

8. Participate in the monthly multidisciplinary cochlear implant team meeting to optimize patient care.
9. Coordinate and educate junior residents and medical students in orchestrating patient's hospital discharge including medications, instructions, needed follow up with the primary service and other disciplines, as needed.

VI Interpersonal and Communication Skills

1. Communicate effectively with patients and their families
2. Communicate effectively and interact with other members of the otology health care team
3. Communicate effectively with primary care and other health care practitioners desiring otology consultation.
4. Complete several Neurotology "chapter" presentations to attending neurotologists and house staff while on service.

OTOLARYNGOLOGY II: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
OTOLOGY- PGY2 RESIDENT

I Knowledge

1. Know the embryology of the ear and temporal bone.
2. Know the anatomy and physiology of pathways for auditory, vestibular and facial function.
3. Know anatomy of the temporal bone through reading, Temporal Bone lectures and hands-on experience in the temporal bone laboratory.
4. Recognize the anatomy of the eustachian tube and sequela from dysfunction.
5. Be able to interpret audiograms, acoustic reflexes, tympanometry, otoacoustic emissions and brain stem evoked audiometry.
6. Know the classification systems for grading facial paralysis.
7. Be able to describe tympanomastoid surgery (canal wall-up, canal wall-down, radical).
8. Know the classification for describing tympanoplasty.
9. Identify critical structures and interpret MRI and CT images of the skull base and temporal bone.
10. Recognize the use of the electronic medical record.

II Patient Care and Skills

1. Through appropriate history taking and physical diagnosis be able to evaluate patients complaining of hearing loss, tinnitus, dizziness, or facial weakness.
2. Be competent in identifying a normal tympanic membrane and common pathology including otitis externa, serous otitis media, tympanic membrane perforation and cholesteatoma.
3. Recognize the use and interpretation of tuning fork testing.
4. Assess the nasopharynx by fiberoptic endoscopy.
5. Perform a Dix-Hallpike test and a particle-repositioning maneuver.
6. Administer eye care for facial paralysis patients.
7. Have basic surgical skills for the following procedures:
 - a. Use of operating microscope
 - b. Removal of cerumen impaction
 - c. Placement of external canal wicks
 - d. Placement of myringotomy tubes in patients under general anesthesia
8. Be able to inject a local anesthetic into the EAC and perform necessary skin incisions and closures for most otologic approaches and a complete mastoidectomy.
9. Provide appropriate history, physical examination, assessment and plan documentation in the Electronic Medical Record.

III. Practice Based Learning

1. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with otologic diagnoses and the scientific evidence for that care.
2. Analyzes the effectiveness of own practices in caring for otology patients.
3. Improve own practices in the care of otology patients by integrating appropriately gathered data and feedback.
4. Educate medical students and other healthcare professional in the practices of otology surgery.
5. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with otology diagnoses.

IV. Interpersonal and Communication Skills

1. Achieve and maintain the respect of the faculty, nursing staff and co-residents.
2. Be sensitive to the confidential needs of patients. When in their presence, conduct discussions of medical findings, management, and other interactions in a professional manner.
3. See patients and consults in a gracious and timely manner.

V. System Based Practice

1. Learn to effectively use Electronic Medical Record system at UPMC PUH
2. Expeditiously complete administrative requirements such as dictation of operative reports, discharge summaries and progress notes. Completion of all documentation to include histories and physicals, progress notes, path requests, and computerized medical record components.

VI. Professionalism

1. Treat patients and family members with compassion and respect
2. Practice strict adherence to hand-washing, cleanliness, and infection control principles when examining patients
3. Respect and appropriately integrate nurses, medical assistants, and other members of the health care team
4. Practice strict adherence to patient privacy in all places including the office, hospital, public areas, and on the phone

OTOLARYNGOLOGY RESIDENCY BENCHMARKS IN PATHOLOGY
EDUCATIONAL GOALS AND OBJECTIVES
PGY1 RESIDENT

I. Medical Knowledge

1. Become acquainted with the indications, contraindications and technical issues of frozen sections performed on head and neck specimens.
2. Learn the significance of close and adequate margins of resections for a variety of tumors.
3. Become familiar with basic criteria that pathologists use in separating benign and malignant tumors.
4. Learn the value of submitting adequate histories to the pathologist.
5. Learn how tumors grow and metastasize.

II. Patient Care

1. Observe and participate in the performance of frozen sections.
2. Observe how pathologists evaluate margins of resection.
3. Take part in the daily microscopic evaluation of benign and malignant tumors.
4. Observe how medical histories may help pathologists in arriving at a diagnosis.
5. Observe gross cancer specimens to see how tumors behave..

III. Practice Based Learning and Improvement

1. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with head and neck diagnoses and the scientific evidence for that care.
2. Routinely analyzes the effectiveness of own practices in caring for head and neck patients.
3. Improve own practices in the care of head and neck patients by integrating appropriately gathered data and feedback.
4. Educate medical students and other healthcare professional in the practices of head and neck surgery.
5. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with head and neck diagnoses.
6. Participate in, and appreciate the value of outcome studies as they apply to diagnoses of the head and neck.

IV. Interpersonal and Communication Skills

1. Educate patients and families in pre- and post-operative care of head and neck patients.
2. Demonstrate compassion for patients and families with congenital and acquired anomalies of the head and neck.
3. Provide adequate counseling and informed consent to patients.
4. Listen to patients and their families.
5. Assimilate data and information provided by the head and neck team and other members of the health care team, in the care of patients with head and neck problems.
6. Assimilate date and information provided by the head and neck team and tumor board in the care of patients with head and neck cancer.

V. System Based Practice

1. To recognize the value of and function within a team approach to treat patients with head and neck malignancies
2. Participate in tumor-board conference.
3. Participates in multidisciplinary planning and treatment for patients with head and neck malignancies.
4. Coordinate all aspects of head and neck rehabilitation, including physical therapy, sensory reeducation, and maxillofacial prosthetics.
5. Direct the rehabilitation of head and neck patients by partnering with the following:

- a. physical therapy
 - b. occupational therapy
 - c. prosthetic and orthotics specialists
 - d. ENT cancer services
 - e. Speech and swallow specialists.
6. Demonstrate knowledge of cost-effective head and neck reconstruction.
 7. Facilitate the timely discharge of head and neck patients.

VI. Professionalism

1. Develop a sensitivity of the unique stress placed on families under care for Head and Neck Cancer.
2. Exhibit an unselfish regard for the welfare of head and neck patients.
3. Demonstrate firm adherence to a code of moral and ethical values.
4. Be respectful to head and neck patients and their families especially in times of trauma and stress to the family unit.
5. Respect and appropriately integrate other members of the oncology team.
6. Provide appropriately prompt consultations when requested.
7. Demonstrate sensitivity to the individual patient's profession, life goals, and cultural background as they apply to head and neck diagnoses.
8. Be reliable, punctual, and accountable for own actions in the OR and clinic.

OTOLARYNGOLOGY RESIDENCY BENCHMARKS IN RADIOLOGY

EDUCATIONAL GOALS AND OBJECTIVES

PGY1 RESIDENT

I. Medical Knowledge

1. To recognize the relative advantages of MR and CT in imaging the head and neck.
2. To recognize the complementary nature of MR and CT in regions such as the petrous apex, floor of mouth, and ear.
3. To develop knowledge of the applications of PET/CT to oncologic imaging of the head and neck.
4. Observe the professional interactions of radiologists with medical personnel such as speech pathologists, physician assistants, and imaging technologists.
5. Be aware of the advantages of direct consultation with a radiologist on complex cases.

II. Patient Care

1. Apply MR and CT to the clinical situations where each is most appropriate.
2. Classify lesions of the head and neck into those that are best biopsied surgically, endoscopically, or under radiologic guidance.
3. Correctly apply appropriateness criteria to the prescription of radiologic services.
4. Identify major anatomic structure on cross-sectional imaging of the head and neck.
5. Identify clinical situations in which consult with a radiologist is mandatory before imaging studies are initiated.

III. Practice Based Learning and Improvement

1. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with head and neck diagnoses and the scientific evidence for that care.
2. Routinely analyzes the effectiveness of own practices in caring for head and neck patients.
3. Improve own practices in the care of head and neck patients by integrating appropriately gathered data and feedback.
4. Educate medical students and other healthcare professional in the practices of head and neck surgery.
5. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with head and neck diagnoses.
6. Participate in, and appreciate the value of outcome studies as they apply to diagnoses of the head and neck.

IV. Interpersonal and Communication Skills

1. Educate patients and families in pre- and post-operative care of head and neck patients.
2. Demonstrate compassion for patients and families with congenital and acquired anomalies of the head and neck.
3. Provide adequate counseling and informed consent to patients.
4. Listen to patients and their families.
5. Assimilate data and information provided by the head and neck team and other members of the health care team, in the care of patients with head and neck problems.
6. Assimilate data and information provided by the head and neck team and tumor board in the care of patients with head and neck cancer.

V. System Based Practice

1. To recognize the value of and function within a team approach to treat patients with head and neck malignancies
2. Participate in tumor-board conference.
3. Participates in multidisciplinary planning and treatment for patients with head and neck malignancies.
4. Coordinate all aspects of head and neck rehabilitation, including physical therapy, sensory reeducation, and maxillofacial prosthetics.
5. Direct the rehabilitation of head and neck patients by partnering with the following:
 - a. physical therapy
 - b. occupational therapy
 - c. prosthetic and orthotics specialists
 - d. ENT cancer services
 - e. Speech and swallow specialists.
6. Demonstrate knowledge of cost-effective head and neck reconstruction.
7. Facilitate the timely discharge of head and neck patients.

VI. Professionalism

1. Develop a sensitivity of the unique stress placed on families under care for Head and Neck Cancer.
2. Exhibit an unselfish regard for the welfare of head and neck patients.
3. Demonstrate firm adherence to a code of moral and ethical values.
4. Be respectful to head and neck patients and their families especially in times of trauma and stress to the family unit.
5. Respect and appropriately integrate other members of the oncology team.
6. Provide appropriately prompt consultations when requested.
7. Demonstrate sensitivity to the individual patient's profession, life goals, and cultural background as they apply to head and neck diagnoses.
8. Be reliable, punctual, and accountable for own actions in the OR and clinic.

OTOLARYNGOLOGY RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
HEAD AND NECK - PGY1 RESIDENT

- I. Medical Knowledge
 1. To demonstrate knowledge of the path physiology and clinical course of patients with tumors of the head and neck.
 2. Knowledge of the surgical anatomy of the head and neck.
 3. To demonstrate knowledge of the preoperative evaluation of patients being considered for head and neck surgery.
 4. Knowledge of several of the basic head and neck procedures including laryngoscopy, neck dissection, thyroidectomy, submandibular gland excision and parotidectomy.
 5. Management of postoperative head and neck surgical patients.
 6. Prevention and management of postoperative complications.

- II. Patient Care
 1. Be able to perform a head and neck examination.
 2. Know basic OR protocols for the management of head and neck surgical patients.
 3. Be able to manage the routine postoperative care for head and neck patients who have undergone head and neck surgery.
 4. Be able to recognize deviations from the normal postoperative course.
 5. Be able to suggest initial management strategies for management of postoperative complications.

- III. Practice Based Learning and Improvement
 1. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with head and neck diagnoses and the scientific evidence for that care.
 2. Routinely analyzes the effectiveness of own practices in caring for head and neck patients.
 3. Improve own practices in the care of head and neck patients by integrating appropriately gathered data and feedback.
 4. Educate medical students and other healthcare professional in the practices of head and neck surgery.
 5. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with head and neck diagnoses.
 6. Participate in, and appreciate the value of outcome studies as they apply to diagnoses of the head and neck.

- IV. Interpersonal and Communication Skills
 1. Educate patients and families in pre- and post-operative care of head and neck patients.
 2. Demonstrate compassion for patients and families with congenital and acquired anomalies of the head and neck.
 3. Provide adequate counseling and informed consent to patients.
 4. Listen to patients and their families.
 5. Assimilate data and information provided by the head and neck team and other members of the health care team, in the care of patients with head and neck problems.
 6. Assimilate data and information provided by the head and neck team and tumor board in the care of patients with head and neck cancer.

V. System Based Practice

1. To recognize the value of and function within a team approach to treat patients with head and neck malignancies
2. Participate in tumor-board conference.
3. Participates in multidisciplinary planning and treatment for patients with head and neck malignancies.
4. Coordinate all aspects of head and neck rehabilitation, including physical therapy, sensory reeducation, and maxillofacial prosthetics.
5. Direct the rehabilitation of head and neck patients by partnering with the following:
 - a. physical therapy
 - b. occupational therapy
 - c. prosthetic and orthotics specialists
 - d. ENT cancer services
 - e. Speech and swallow specialists.
6. Demonstrate knowledge of cost-effective head and neck reconstruction.
7. Facilitate the timely discharge of head and neck patients.

VI. Professionalism

1. Develop a sensitivity of the unique stress placed on families under care for Head and Neck Cancer.
2. Exhibit an unselfish regard for the welfare of head and neck patients.
3. Demonstrate firm adherence to a code of moral and ethical values.
4. Be respectful to head and neck patients and their families especially in times of trauma and stress to the family unit.
5. Respect and appropriately integrate other members of the oncology team.
6. Provide appropriately prompt consultations when requested.
7. Demonstrate sensitivity to the individual patient's profession, life goals, and cultural background as they apply to head and neck diagnoses.
8. Be reliable, punctual, and accountable for own actions in the OR and clinic.

Night Float Rotation Specific Educational Goals and Objectives – Otolaryngology PGY1 Resident

Competency	Goals	Objectives	Activities	Evaluation
Patient Care	1. To be able to appropriately evaluate the health of a patient before and after surgery.	<ul style="list-style-type: none"> • To become competent in the assessment procedures to use before and after surgery 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	2. To be able to appropriately prepare a patient for surgery.	<ul style="list-style-type: none"> • To properly assess the fitness of the patient. To properly assess indications for surgery. 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	3. To become proficient in the delivery of basic patient care/ management skills	<ul style="list-style-type: none"> • To be able to provide: <ul style="list-style-type: none"> ○ Wound care ○ Drain care • To be able to insert and remove: <ul style="list-style-type: none"> ○ Foley catheter ○ Peripheral IV ○ Central line ○ NG tube 	<ul style="list-style-type: none"> • Division Conference • Didactic teaching • Outpatient Clinic • Ward Rounds 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	4. To be competent in providing ACLS	<ul style="list-style-type: none"> • To be able to perform: <ul style="list-style-type: none"> ○ Intubation ○ Central line placement ○ Cardioversion ○ Cardiac arrhythmia management ○ Pigtail catheter and chest tube insertion ○ NG placement ○ ICU transfer 	<ul style="list-style-type: none"> • Open Skills Curriculum • ICU Teaching rounds with CCM staff and surgeons • Didactic Teaching • Wisser Center 	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback

			teaching	
Medical Knowledge	1. To develop a fund of knowledge concerning fundamental surgical principles and underlying anatomy	<ul style="list-style-type: none"> • To recognize: <ul style="list-style-type: none"> ○ Preoperative evaluation/risk assessment ○ Antibiotic prophylaxis ○ Fluid therapy ○ Interpretation of chest x-ray, CT imaging ○ Preoperative nutrition ○ Principles of postoperative management 	Division Conference Didactic teaching Outpatient Clinic Ward Rounds	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
	2. To gain knowledge about the evaluation and care of the patient	<ul style="list-style-type: none"> • To demonstrate knowledge of the diagnosis and treatment options of such conditions as: <ul style="list-style-type: none"> ○ Acute MI ○ CVA ○ Post-operative bleeding ○ Acute respiratory failure ○ Oliguria ○ CHF ○ GI bleeding 	Division Conference Didactic teaching Outpatient Clinic Ward Rounds	<ul style="list-style-type: none"> • Exit examination • ABSITE Examination • Global Faculty Evaluation • Direct Observation and Attending Feedback
Practice-based learning and improvement	1. To be able to critique one's day to day practice	<ul style="list-style-type: none"> • To be able to self-direct learning as a result of input received critiquing one's own daily practice • Obtain and use information about one's own patients and the larger population from which they are drawn • Use information technology to manage information, access on-line medical 	<ul style="list-style-type: none"> • Morbidity and Mortality Conference • Operative teaching • Outpatient clinic 	<ul style="list-style-type: none"> • Global faculty evaluation • Direct Observation and Attending Feedback • Self-evaluations

		information, and support one's own education		
Interpersonal and communication skills	1. To be able to communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	<ul style="list-style-type: none"> • To appropriately gather necessary information from patients • Explain relevant information to patients and families 	<ul style="list-style-type: none"> • Ward Rounds • Operative teaching 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
	2. To be able to effectively communicate with peers, allied health professionals, and the general public	<ul style="list-style-type: none"> • Clearly communicates intentions • Respond to requests from peers • Transfer necessary information to team members 	<ul style="list-style-type: none"> • Ward Rounds • Operative teaching 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Peer/staff evaluations • Patient evaluations • Global faculty evaluation
Professionalism	1. To maintain a sense of professional integrity between colleagues and patients and their families.	<ul style="list-style-type: none"> • To be able to demonstrate: <ul style="list-style-type: none"> ○ Ethical behavior toward patients and colleagues ○ Respect toward colleagues and patients and their families ○ A commitment to ethical principles pertaining to patient privacy and autonomy, the provision or withholding of 	<ul style="list-style-type: none"> • Ward Rounds • Didactic teaching • Morbidity and Mortality conference 	<ul style="list-style-type: none"> • Direct observation and attending feedback • Global faculty evaluation • Peer/staff evaluations • Patient evaluations

		<p>clinical care, confidentiality of patient information, informed consent, conflict of interest, and business practices</p> <ul style="list-style-type: none"> ○ Openness about one's intentions ● To be responsible and accountable for one's own actions ● To be courteous toward colleagues and patients and their families ● To be sensitive and responsive to the patient's culture, age, gender, and disabilities 		
Systems-based practice	<p>1. To have an awareness of how one's own practice interfaces with the institution in which one practices</p>	<ul style="list-style-type: none"> ● To be knowledgeable about: <ul style="list-style-type: none"> ○ The function of the system ○ The relationship between the system and one's own practice ○ Practice-based outcomes ○ System expectations ○ Differences between the VA system and non-VA systems ● Assist patients and their families in dealing with system complexities ● Incorporate considerations of cost-awareness and risk- 	<ul style="list-style-type: none"> ● Case Conference ● Ward Rounds ● Didactic teaching 	<ul style="list-style-type: none"> ● Direct observation and attending feedback ● Global faculty evaluation ● Peer/staff evaluations ● Patient evaluations

		benefit analysis into day to day practice		
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**PLASTIC SURGERY OF THE HEAD
AND NECK**

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
PLASTIC SURGERY – PGY3 RESIDENT

A. Medical Knowledge

I: Anatomy/Physiology/Embryology

Goal: The resident will achieve detailed knowledge of the anatomy, physiology, embryology of the head and neck, and will apply this knowledge to the medical management of disorders and processes in this anatomic area.

Objectives:

1. Describe the anatomy of the skull including sutures, foramina, and cranial nerves.
2. Identify the anatomy of the facial bones.
3. Identify the anatomy of the eye including normal dimensions, bony structures, eyelids, extraocular muscles, innervation, vascular supply, and lacrimal apparatus.
4. Identify the anatomy of the ear including common measurements, relationships to other structures, and the vascular and sensory supply.
5. Draw the anatomy of the nose and septum including bones, nerves and vascular supply.
6. Recite the anatomy of the oropharynx including muscular structures and contiguous neurovascular structures.
7. Recite the physiology of the oropharynx including palatal function, speech, and swallowing.
8. Explain the general principles of embryology of the head and neck, with special reference to the development of the facial structures and the occurrence of congenital anomalies such as cleft lip and palate.
9. Recite the basic anatomy of the dental structures and the TMJ.

II: Congenital Disorders

Goal: The resident will achieve familiarity with the anatomy, embryology and principles of treatment of congenital disorders of the head and neck.

Objectives:

1. Demonstrate intimate knowledge of the common congenital disorders of the head and neck including cleft lip and palate, craniofacial syndromes, vascular malformations, and auricular abnormalities
2. Discuss the etiology, genetics, embryology and anatomy of congenital disorders of the head and neck.
3. Be familiar with growth and development of the craniofacial skeleton and its affect on anomalies and their treatment
4. Be able to recite the diagnostic criteria and discuss the evaluation and treatment for congenital anomalies such as:
 - a. craniosynostosis
 - b. hemifacial microsomia
 - c. rare craniofacial clefting
 - d. orbital hypertelorism
 - e. Pierre-Robin sequence
 - f. craniofacial tumors
 - g. choanal atresia
 - h. nasal anomalies
 - i. ear anomalies (prominent ear, microtia)
 - j. vascular anomalies
 - k. branchial cleft cysts
 - l. thyroglossal duct cysts
5. Discuss the cephalometric landmarks and analysis in the presurgical planning of patients with congenital head and neck anomalies.

III: Benign and Malignant Tumors

Goal: The resident will obtain knowledge of benign and malignant tumors of the head and neck, recognize the biologic basis of treatment options for these lesions, and perform complete management of such lesions including diagnosis, surgery and nonsurgical therapy.

Objectives:

1. Recognize the clinical presentation of squamous cell carcinoma of the head and neck.
2. Recite the lymphatic drainage pattern of the head and neck structures and the relationship to the management of malignant tumors.
3. Recite the methods for diagnosis and the options for treatment of squamous cell carcinomas of the head and neck.
4. Recite the TNM staging system for tumors of the head and neck; know the features and biologic behavior of these lesions.
5. Describe the general principles and techniques of adjuvant therapy such as radiation therapy and chemotherapy for head and neck malignancies.
6. Discuss the indications for and the role of neck dissection in the treatment of head and neck malignancies.
7. Recite the process of long-term follow-up for patients with head and neck malignancies.
8. Recite the diagnosis of and principles of care for:
 - a. rhinophyma
 - b. eyelid and lacrimal neoplasms
 - c. infections of the head and neck
 - d. disease of nasal cavity and paranasal sinuses
9. Discuss the differential diagnosis of hemangiomas and vascular malformations.
10. Discuss the treatment options, including steroid therapy, laser therapy, and surgery for hemangiomas and vascular malformations of the head and neck.

IV: Trauma

Goal: The resident will be familiar with the mechanisms of traumatic head and neck injuries, recognize the diagnostic techniques and therapeutic options for such problems, and perform complete management of traumatic injuries of the head and neck.

Objectives:

1. Describe the priorities involved in treating patients with head and neck injuries.
2. Describe the mechanical and structural properties of the facial skeleton as they relate to fracture patterns in facial trauma.
3. Describe the concepts of primary bone healing, malunion, nonunion and osteomyelitis.
4. Discuss the advantages and disadvantages of various techniques of treatment of facial fractures including:
 - a. nonoperative treatment
 - b. closed reduction
 - c. mandibulomaxillary fixation
 - d. open reduction with and without fixations
 - e. intraoral splints
 - f. external fixation
 - g. bone grafting.
5. Describe the treatment of facial fracture complications including:
 - a. secondary deformities
 - b. infections and osteomyelitis
 - c. malocclusion
 - d. nonunions
 - e. malunions.

6. Describe the neuroanatomy, cranial nerve anatomy and soft tissue anatomy pertinent to facial fractures.
7. Recite the treatment of soft tissue injuries of the head and face including:
 - a. parotid gland and duct
 - b. facial nerve
 - c. lacrimal apparatus.
8. Describe the evaluation and treatment of secondary deformities of facial fracture including:
 - a. malocclusion
 - b. enophthalmos
 - c. frontal sinus mucoceles
 - d. facial nerve paralysis
 - e. soft tissue contractures.
9. Discuss the principles of care and the surgical steps in the treatment of the following facial fractures:
 - a. frontal sinus
 - b. naso-orbital ethmoid
 - c. orbital
 - d. zygomatic
 - e. nasal
 - f. maxillary
 - g. mandibular
 - h. pan-facial.

B. Patient Care

Goal: The resident will provide patient care that is compassionate, appropriate, and effective for the treatment of hand and neck problems.

Objectives:

1. Obtain cephalometric measurements and analyze cephalometric data in the presurgical planning.
2. Perform a comprehensive head and neck exam followed by facial form analysis.
3. Utilize radiographic and special diagnostic studies to evaluate head and neck anomalies.
4. Formulate a definitive short- and long-term treatment plan for common congenital disorders, choosing the most appropriate surgical or nonsurgical modality.
5. Draw the reconstruction of a cleft lip and palate.
6. Diagnose and develop a treatment plan for velopharyngeal incompetence.
7. Coordinate nonsurgical treatment of congenital head and neck disorders.
8. Participate in the Cleft-Craniofacial Team's multidisciplinary evaluation and treatment planning for congenital disorders of the head and neck.
9. Provide perioperative care and participate in surgical treatment of patients with craniofacial anomalies.
10. Utilize diagnostic techniques for head and neck tumors including radiographic methods (e.g., sialogram, MRI scan, etc) and fine needle aspiration.
11. Perform fine needed aspirate biopsies.
12. Recite the steps in the surgical treatment of:
 - a. oropharyngeal tumors
 - b. salivary gland tumors
 - c. neck dissections

- d. tumors of bony and dental origin.
13. Participate in the extirpative surgery for oropharyngeal tumors, including performing neck dissection.
 14. Evaluate and treats patients with head and neck tumors of a vascular origin.
 15. Perform an orderly and systematic physical examination of the patient with facial trauma.
 16. Interpret radiographic diagnostic studies including panorex films, cephalograms, CT/3D CT scans, MR imaging, and angiography with respect to the head and neck trauma patient.
 17. Perform the staged management of devastating open facial injuries including wound care, debridement and reconstruction.
 18. Perform surgical procedures of facial fracture management including:
 - a. maxillary
 - b. mandibular
 - c. orbital
 - d. frontal sinus
 - e. zygomatic
 - f. zygomatic arch
 - g. nasal
 - h. panfacial.
 19. Perform all surgical techniques of access to the craniofacial skeleton.
 20. Perform a comprehensive examination of the facial nerve.
 21. Perform acute repair of soft tissue facial trauma.
 22. Perform secondary scar revision from facial trauma.

23. Perform primary facial nerve repair, and associated procedures (i.e. global weight, static, and dynamic reconstruction) for the patient with facial paralysis.
24. Perform systemic therapy and local injection of steroids for treatment of facial hemangiomas.
25. Perform laser treatment for vascular malformations.

C. Practice Based Learning and Improvement

Goal: The resident will investigate and evaluate his or her own patient care practices, appraise and assimilate scientific evidence, and improved patient care practices.

Objectives:

1. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with head and neck diagnoses and the scientific evidence for that care.
2. Routinely analyzes the effectiveness of own practices in caring for head and neck patients.
3. Improve own practices in the care of head and neck patients by integrating appropriately gathered data and feedback.
4. Educate medical students and other healthcare professional in the practices of head and neck surgery.
5. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with head and neck diagnoses.
6. Participate in, and appreciate the value of outcome studies as they apply to diagnoses of the head and neck.

D. Interpersonal and Communication Skills

Goal: The resident will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

Objectives:

1. Educate patients and families in pre- and post-operative care of head and neck patients.
2. Demonstrate compassion for patients and families with congenital and acquired anomalies of the head and neck.
3. Provide adequate counseling and informed consent to patients.
4. Listen to patients and their families.
5. Assimilate data and information provided by the craniofacial team and other members of the health care team, in the care of patients with congenital head and neck anomalies.
6. Assimilate data and information provided by the head and neck team and tumor board in the care of patients with head and neck cancer.

E. System Based Practice

Goal: The resident will demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Objectives:

1. Function within the organization of specialty clinics (Cleft Palate Center, Craniofacial Clinic) including the coordination of all special services in the evaluation of children with these anomalies.
2. Be able to coordinate the nonsurgical treatment of patients with congenital anomalies among contributing specialties (prosthetics, orthodontics, speech therapy).
3. Recognize the value of and function within a team approach to treat patients with head and neck malignancies
4. Participate in tumor-board conference.
5. Participates in multidisciplinary planning and treatment for patients with head and neck malignancies.
6. Coordinate all aspects of head and neck rehabilitation, including physical therapy, sensory reeducation, and maxillofacial prosthetics.
7. Direct the rehabilitation of head and neck patients by partnering with the following:
 - a. physical therapy
 - b. occupational therapy
 - c. prosthetic and orthotics specialists
 - d. ENT cancer services
 - e. Speech and swallow specialists.
8. Demonstrate knowledge of cost-effective head and neck reconstruction.
9. Advocate for congenital craniofacial patients within the health care and insurance system.

10. Recognize the benefits and functionality of multidisciplinary craniofacial teams.
11. Refer craniofacial patients to the appropriate practitioners and agencies.
12. Appreciate the functioning of the multispecialty fetal diagnosis and treatment committees and the potential role prenatal diagnosis plays in the family unit.
13. Facilitate the timely discharge of head and neck patients.
14. Partner with pediatricians in the combined care of infants undergoing systemic steroid therapy for head and neck hemangiomas.

F. Professionalism

Goal: The resident will demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

Objectives:

1. Develop a sensitivity of the unique stress placed on families under care for congenital craniofacial anomalies.
2. Exhibit an unselfish regard for the welfare of head and neck patients.
3. Demonstrate firm adherence to a code of moral and ethical values.
4. Be respectful to head and neck patients and their families especially in times of trauma and stress to the family unit.
5. Respect and appropriately integrate other members of the craniofacial team.
6. Provide appropriately prompt consultations when requested.
7. Demonstrate sensitivity to the individual patient's profession, life goals, and cultural background as they apply to head and neck diagnoses of trauma, malignancy, and congenital anomalies.
8. Be reliable, punctual, and accountable for own actions in the OR and clinic.

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS
EDUCATIONAL GOALS AND OBJECTIVES
HEAD AND NECK – PGY2 Resident

I. Medical Knowledge

1. Preoperative evaluation: The resident should demonstrate knowledge of the essential components and the evaluation of the following entities.
 - a. Obstructive sleep apnea
 - b. Neck mass
 - c. Hoarseness
 - d. Head and neck cancer
 - e. Stridor

2. The resident should study and recognize:
 - a. Staging of head and neck cancer
 - b. Recognize neck zone anatomy
 - c. Discuss indications for selective zone dissection
 - d. Epidemiology
 - e. Second primary tumor
 - f. Post-treatment monitoring
 - g. HPV and Head and Neck cancer
 - h. Spaces in Head and Neck

II. Patient Care

1. Surgical treatment options:
 - a. Obstructive sleep apnea
 - b. Head and neck cancer
 - c. Airway emergencies

2. Postoperative care:
 - a. Obstructive sleep apnea
 - b. Neck dissection
 - c. Tracheotomy

3. Identification and management of surgical complications:
 - a. Wound infection
 - b. Airway compromise
 - c. Nutritional deficiency
 - d. Postoperative fever

4. Resident PGYII should be an expert at:
 - a. Physical examination of Head and Neck
 - b. Flexible and rigid laryngoscopy
 - c. Tracheotomy

- d. Tonsillectomy
- e. Uvulopalatopharyngoplasty
- f. Excision of neck mass
- g. I & D Neck Abscess

III. Practice Based Learning and Improvement

1. Use information technology to prepare for surgical cases, bringing to the OR the knowledge of current modalities of care for patients with head and neck diagnoses and the scientific evidence for that care.
2. Routinely analyzes the effectiveness of own practices in caring for head and neck patients.
3. Improve own practices in the care of head and neck patients by integrating appropriately gathered data and feedback.
4. Educate medical students and other healthcare professional in the practices of head and neck surgery.
5. Function independently with graduated advancement and appropriate faculty supervision in the evaluation and treatment of patients with head and neck diagnoses.
6. Participate in, and appreciate the value of outcome studies as they apply to diagnoses of the head and neck.

IV. Interpersonal and Communication Skills

1. Educate patients and families in pre- and post-operative care of head and neck patients.
2. Demonstrate compassion for patients and families with congenital and acquired anomalies of the head and neck.
3. Provide adequate counseling and informed consent to patients.
4. Listen to patients and their families.
5. Assimilate data and information provided by the head and neck team and other members of the health care team, in the care of patients with head and neck problems.
6. Assimilate data and information provided by the head and neck team and tumor board in the care of patients with head and neck cancer.

V. System Based Practice

1. Recognize the value of and function within a team approach to treat patients with head and neck malignancies.
2. Participate in tumor-board conference.
3. Participates in multidisciplinary planning and treatment for patients with head and neck malignancies.
4. Coordinate all aspects of head and neck rehabilitation, including physical therapy, sensory reeducation, and maxillofacial prosthetics.
5. Direct the rehabilitation of head and neck patients by partnering with the following:
 - a. physical therapy
 - b. occupational therapy
 - c. prosthetic and orthotics specialists
 - d. ENT cancer services
 - e. Speech and swallow specialists.
6. Demonstrate knowledge of cost-effective head and neck reconstruction.
7. Facilitate the timely discharge of head and neck patients.

VI. Professionalism

1. Develop a sensitivity of the unique stress placed on families under care for Head and Neck Cancer.
2. Exhibit an unselfish regard for the welfare of head and neck patients.
3. Demonstrate firm adherence to a code of moral and ethical values.
4. Be respectful to head and neck patients and their families especially in times of trauma and stress to the family unit.
5. Respect and appropriately integrate other members of the oncology team.
6. Provide appropriately prompt consultations when requested.
7. Demonstrate sensitivity to the individual patient's profession, life goals, and cultural background as they apply to head and neck diagnoses.
8. Be reliable, punctual, and accountable for own actions in the OR and clinic.

OTOLARYNGOLOGY: RESIDENCY BENCHMARKS

EDUCATIONAL GOALS AND OBJECTIVES

CONSULT SERVICE – PGY2 Resident

1. Medical Knowledge

Goal: The resident will achieve detailed knowledge of the anatomy and physiology of the head and neck, and will be able to apply this knowledge to the management of disorders of the area.

- a. To recognize the role of consultant in in-patient setting
- b. To recognize role of consultant in Emergency Department setting
- c. Recognize common underlying medical conditions in the immune-competent host responsible for:
 - i. Epistaxis
 - ii. Oro-pharyngeal bleeding
 - iii. Fungal sinusitis
 - iv. Vocal fold immobility
 - v. Hoarseness
 - vi. Airway management, including tracheotomy (indications, management, complications), types of tracheotomy tubes, speaking valves
 - vii. Abscesses of the head and neck
 - viii. Dizziness
 - ix. Head and neck cancer
 - x. Repair of lacerations and abrasions of the head and neck
 - xi. Traumatic repair of lacerations and facial fractures
- d. Recognize role of immune-incompetency in diseases of the head and neck
- e. Know infection control practices and hand hygiene in consultative practice

2. Patient Care

Goal: The resident will provide patient care that is compassionate, appropriate, and effective for the treatment of head and neck problems.

- a. Consistently demonstrate adherence to infection control practices and hand hygiene
- b. Be able to prioritize otolaryngologic disease processes in the context of the patient's overall medical, social, and psychiatric status
- c. Obtain an appropriate history from available sources
- d. Be able to select appropriate evaluation techniques for specific consults
- e. Be able to coordinate and manage otolaryngic care for patients
- f. Demonstrate appropriate care of instrumentation
- g. Be able to perform required system-specific examinations to include
 - i. Otoscopy
 - ii. Nasal endoscopy
 - iii. Oral cavity examination

- iv. Flexible trans-nasal laryngoscopy
- v. Flexible trans-tracheal (via tracheotomy tube) laryngoscopy
- vi. Fiberoptic endoscopic evaluation of swallowing (FEES)
- h. Be able to appropriately order and interpret radiographic diagnostic studies, including CT imaging, MR imaging, angiography
- i. Be able to manage epistaxis occurring in the patient with normal coagulation parameters
- j. Be able to manage epistaxis occurring in the coagulopathic patient
- k. Be able to perform a sinus tap
- l. Be able to manage sinusitis in the immunocompetent patient
- m. Be able to manage infections of the soft tissues, sinuses, oral cavity, and pharynx in the immunocompromised patient
- n. Be able to appropriately manage airway emergencies
- o. Be able to effectively and efficiently record pertinent findings.
- p. Be able to communicate effectively with the consulting service

3. Practice Based Learning and Improvement

Goal: The resident will investigate and evaluate his/her own patient care practices, appraise and assimilate scientific evidence, and improve patient care practices.

- a. Demonstrate “ownership” of patients by consistently reassessing diagnoses and treatment strategies
- b. Routinely analyze the effectiveness of his/her own practices in caring for head and neck patients
- c. Improve his/her own practices in the care of head and neck patients by appropriately integrating data and feedback
- d. Know all pertinent patient-specific data for active “consult service” patients
- e. Respond to all pages and messages in a timely fashion
- f. Be able to recognize and appropriately manage emergent situations (ie: airway)
- g. Follow-up on laboratory data, pathology reports, radiology reports, and other medical service input in coordinating patient care in reference to their otolaryngology complaints, without reminders

4. Interpersonal and Communication Skills

Goal: The resident will demonstrate interpersonal and communications skills that result in effective information exchange with families, and professional associates.

- a. Educate patients and families about the otolaryngic care they are receiving
- b. Demonstrate compassion and respect for patients, family members, and members of the health care team
- c. Provide adequate counseling and informed consent to patients
- d. Listen to patients, their families, and other members of the health care team

5. System Based Practice

Goal: The resident will demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

- a. To recognize the value of and function within a team approach to treat otolaryngology patients
- b. Effectively use the Electronic Medical Record (EMR) system
- c. To recognize proper coding and billing for consults
- d. Facilitate proper patient follow-up with an otolaryngologist after discharge from the hospital

6. Professionalism

Goal: The resident will demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

- a. Exhibit an unselfish regard for the welfare of all head and neck patients
- b. Demonstrate firm adherence to a code of moral and ethical values
- c. Practice strict adherence to hand-washing, cleanliness, and infection control principles when examining patients
- d. Provide appropriately prompt consultations when requested
- e. Practice strict adherence to patient privacy in all places, including the office, hospital, public areas, and on the phone
- f. Treat patients and family members with compassion and respect, being sensitive to the individual patient's otolaryngic problem and its potential effect on quality of life issues
- g. Respect and appropriately integrate nurses, medical assistants, and other members of the health care team
- h. Be reliable, punctual, and accountable for his/her own actions in the hospital wards and in the OR

OTOLARYNGOLOGY RESIDENCY BENCHMARKS IN PEDIATRIC OTOLARYNGOLOGY
EDUCATIONAL GOALS AND OBJECTIVES

Otolaryngology Resident PGY4

I. Medical Knowledge:

To develop knowledge of diseases and disorders specific to infants and children, and differences in medical management of infants, children, and adults in the area of the ear, nose and throat – head and neck

- A. Recognize the impact of congenital disorders on the care of pediatric patient
- B. Assessment and management including surgical indications for infants and children for the following conditions:
 - 1. Recurrent tonsillitis
 - 2. Hypertrophic adenotonsillar disease/ obstructive sleep apnea
 - 3. Otitis media
 - 4. Airway emergencies
 - 5. Foreign bodies in the aerodigestive tract
 - 6. Sinusitis
 - 7. Inflammatory and infectious conditions of the head and neck
 - 8. Evaluation of stridor
 - 9. Congenital head and neck anomalies

II. Patient Care:

Skills:

- A. Demonstrate skills in:
 - 1. physical examination of infants and children
 - 2. pneumatic otoscopy
 - 3. interpreting tympanometry, and behavioral audiometry results
 - 4. tracheostomy change in infants and children.
- B. Learn basic surgical skills for the care of common ear, nose and throat – head and neck, and bronchosopagologic diseases and disorders in infants and children:
 - 1. Bilateral myringotomy and tube insertion
 - 2. Paper patch/Fat graft myringoplasty
 - 3. Adenoidectomy and tonsillectomy
 - 4. I&D of peritonsillar abscess
 - 5. Tracheotomy
 - 6. Excision of minor neck masses
 - 7. Nasal endoscopy
 - 8. Antral irrigation
 - 9. Flexible laryngoscopy
 - 10. Direct laryngo-bronchoscopy in children
 - 11. Esophagoscopy and biopsy in children
 - 12. Removal of uncomplicated foreign bodies of the esophagus
 - 13. Closed reduction of nasal fracture
- C. Identification and management of post-surgical complication:
 - 1. Post-operative bleeding
 - 2. Wound infection
 - 3. Tissue ischemic
 - 4. Airway problem
 - 5. Postoperative pneumonia

III. Professionalism:

1. Demonstrates respect, compassion and integrity
2. Demonstrates a commitment to ethics, confidentiality, and informed consent
3. Demonstrates sensitivity and responsiveness to patient's age, culture, gender and disabilities

IV. Interpersonal and Communication Skills:

1. Creates sound relationship with patients and staff
2. Works effectively with others

V. Practice Based Learning and Improvement:

1. Appraises evidence from literature related to patients
2. Apply knowledge of studies and statistical methods to evaluate studies
3. Uses informatics technology effectively
4. Facilitates learning of others

VI. Systems-Based Practice:

1. Recognize how their patient care relates to other healthcare providers
2. Recognize healthcare costs
3. Practices cost effective healthcare and uses resources appropriately
4. Assists patients with system complexities

RESIDENCY BENCHMARKS IN PEDIATRIC OTOLARYNGOLOGY
EDUCATIONAL GOALS AND OBJECTIVES

Otolaryngology Resident – PGY2 Resident

I. Medical Knowledge:

- A. Assessment and management including surgical indications for infants and children for the following conditions:
1. Reconstruction of the airway
 2. Sensorineural hearing loss
 3. Tumors of the head and neck

II. Patient Care:

Skills:

The resident should have developed skills to perform the following procedures:

- A. Expand surgical skills for the care of infants and children:
1. Tympanoplasty/ ossicular reconstruction
 2. Cortical mastoidectomy
 3. Exploration of middle ear for perilymphatic fistula
 4. Endoscopic sinus surgery
 5. Septoplasty
 6. I & D of subperiosteal abscess
 7. Excision of submandibular gland
 8. I & D of neck abscess
 9. Excision of thyroglossal duct cyst and simple brachial cleft cysts
 10. Direct laryngo-bronchio-esophagoscopy in infant/children
 11. Removal of simple laryngo-bronchio-esophageal foreign bodies
 12. Assist in (not primary surgeon)
 - a. Laryngotracheal reconstruction
 - b. Tympanomastoidectomy for cholesteatoma
 - c. Cochlear implants
 - d. Microtia atresia repair
 - e. Complicated tumors in the head and neck
 - f. Surgery involving facial nerve (ear, parotid, branchial clefts cysts).
- B. Identification and management of post-surgical complication:
1. Post-operative bleeding
 2. Wound infection
 3. Tissue ischemic
 4. Airway problem
 5. Postoperative pneumonia

III. Professionalism:

- A. Demonstrates respect, compassion and integrity
- B. Demonstrates a commitment to ethics, confidentiality, and informed consent
- C. Demonstrates sensitivity and responsiveness to patient's age, culture, gender and disabilities

IV. Interpersonal and Communication Skills:

- A. Creates sound relationship with patients and staff

B. Works effectively with others

V. Practice Based Learning and Improvement:

- A. Appraises evidence form literature related to patients
- B. Apply knowledge of studies and statistical methods to evaluate studies
- C. Uses informatics technology effectively
- D. Facilitates learning of others

VI. Systems-Based Practice:

- A. Understands how their patient care relates to other healthcare providers
- B. Understands healthcare costs
- C. Practices cost effective healthcare and uses resources appropriately
- D. Assists patients with system complexities