

Pediatric Otolaryngology Rotation (Ped Oto)

This rotation provides a comprehensive, mentored exposure to the care of patients in pediatric head and neck surgery, rhinology and sinus surgery, otology/neurotology, and laryngology (airway/voice/swallowing disorders). The five attendings on these services are members of the faculty of the Division of Otolaryngology/Head and Neck Surgery. Residents rotate on the pediatric otolaryngology service during the R2 and R4 years. Training occurs primarily at University Hospital outpatient clinics, Primary Children's Hospital (PCH) clinics, operating rooms and inpatient floors.

Didactic teaching on Ped Oto service is informal and structured around patients' outpatient and surgical visits and floor consults. Efforts focus on the ability to understand the pathophysiology and scientific evidence to support good judgment in the diagnosis and treatment of common and rare problems in these fields. Ped Oto residents participate in the monthly joint Ped Oto-radiology conference, craniofacial clinic, vascular malformations conference, tracheotomy-ventilator clinic, hearing assessment clinic and aerodigestive clinics. Additionally, Ped Oto residents are required to participate in all formal didactic sessions at the University, including the Temporal Bone Dissection and Head and Neck Dissection courses.

Goals and Objectives

The Ped Oto rotation is run in accordance with the core competencies for otolaryngology residency program requirements. Residents are also expected to meet the pediatric otolaryngology program goals and objectives for their training level.

The R2 resident will meet develop competency in the following areas by meeting these objectives:

Patient Care:

1. Develop intermediate levels of competence in outpatient, inpatient, consultation, and surgical services and procedures of the specialties on the Peds Oto service.
2. Progress from close supervision by the attending when taking a history and performing a physical examination, determining a diagnosis, and formulating a treatment plan to being able to perform these functions with diminishing levels of oversight.
3. Develop intermediate surgical skills and progress towards performing as first assistant in major surgical cases or as primary surgeon in appropriate cases after competence has been determined by the attending.
4. Develop soft tissue technique for closure of skin lacerations.
5. Demonstrate basic soft tissue skills including atraumatic handling of tissues and proper selection of instruments for different soft tissue procedures.
6. Develop surgical skills for ear tube insertion and adenotonsillectomy procedures.
7. Become proficient in: closed reduction of nasal fractures, placement of maxillomandibular fixation, inferior turbinate submucosal resection, debridement of the mastoid cavity, typanostomy, myringotomy, ear cartilage grafts, split-thickness skin grafts, tonsillectomy, and adenoidectomy, incision and drainage of neck abscess, peritonsillar abscess, control of epistaxis, diagnostic endoscopy of the upper aerodigestive tract in clinic, inpatient, and OR settings.

Medical Knowledge

1. Become knowledgeable about disease processes in the Ped Oto patient populations.

2. Understand the principles of otitis media, obstructive sleep apnea, tonsillitis, congenital neck masses, complications of otitis media, complications of sinusitis, malignant neck lesions, inflammatory neck lesions, pediatric sinusitis, velopharyngeal insufficiency, airway obstruction, dysphagia, cleft lip and palate and hearing loss, maxillofacial trauma in children.
3. Develop knowledge of needles and sutures used in soft tissue surgery.
4. Demonstrate proper identification of head and neck, otologic and sinus anatomy.

Practice-Based Learning and Improvement

1. Develop teaching and evaluation skills through working with medical students and junior residents and assessing their performance.
2. Effectively educate patients and other healthcare professionals about pediatric otolaryngologic disease, treatment, and prevention.

Interpersonal and Communication Skills

1. Develop communication skills when interacting with patients and their families across the socioeconomic spectrum from insured to uninsured trauma patients.
2. Gather patient data in preparation for morning rounds and learn to communicate this information effectively to the 5 attendings, consulting medical services, and allied health professionals.
3. Develop skills for effective dictation and/or transcription of clinical notes.
4. Meet all requirements for timely completion of medical records.

Professionalism

1. Demonstrate compassion, integrity, and respect for others and for a diverse patient population.
2. Demonstrate responsiveness to patient needs that supersedes self-interest.
3. Show respect for patient privacy and autonomy.

Systems-Based Practice

1. Develop competency in delivering health care in different physical settings (outpatient clinic, inpatient rooms, OR, ER)
2. Demonstrate sound decision making to deliver cost-effective and safe patient care.
3. Present cases at monthly Morbidity and Mortality conference to develop skills necessary to identify system errors and suggestions for systemic change.

The R4 resident will meet develop competency in the following areas by meeting these objectives:

Patient Care:

1. Demonstrate mastery in the proper ordering of diagnostic and imaging modalities.
2. Independently evaluate new patients and present them to the attending with an appropriate treatment plan.
3. Demonstrate mastery of all in-office procedures and will be prepared to act as surgeon in most operations.
4. Demonstrate mastery of some cleft palate, lip and head and neck techniques.
5. Demonstrate proficiency in: open nasal surgery; airway reconstruction; major head and neck procedures including for the treatment of vascular malformations, tympanoplasty with

mastoidectomy, ossicular chain reconstruction, and/or prosthesis, upper aerodigestive tract endoscopy with therapeutic interventions.

Medical Knowledge

1. Achieve mastery of the related anatomy and physiology, disease processes, disorders, and the medical, surgical, and behavioral treatments for these patient populations.
2. Be able to discuss all appropriate medical and surgical interventions for a given patient presentation.
3. Be able to identify the benefits, risks, and potential complications of different techniques, justify the choice of the appropriate technique in various cases.
4. Properly develop surgical plans for head and neck, otologic, and sinus disorders with understanding of appropriate techniques in various cases.
5. Understand the work-up and decision process for treatment of velopharyngeal insufficiency.
6. Understand the design and execution resection of venous malformations, lymphatic malformations, arteriovenous malformations and congenital, malignant and inflammatory neck lesions.
7. Be able to describe the surgical procedure for advanced procedures including cleft lip and palate, microtia, velopharyngeal insufficiency, and otoplasty.

Practice-Based Learning and Improvement

1. Demonstrate superior teaching and evaluation skills through working with medical students and junior residents and assessing their performance.
2. Develop awareness of weaknesses of junior residents and bringing them to the attention of the attending or the PD as appropriate.
3. Effectively educate patients and other healthcare professionals about otolaryngic disease, treatment, and prevention.

Interpersonal and Communication Skills

1. Demonstrate mastery of communication skills when interacting with patients and their families across the socioeconomic spectrum such as insured patients and uninsured trauma patients.
2. Lead morning rounds and teach the R2 how to communicate information effectively to attendings, consulting medical services, and allied health professionals.
3. Demonstrate mastery of effective dictation and/or transcription of clinical notes.
4. Meet all requirements for timely completion of medical records and oversee the same for junior residents.

Professionalism

1. Demonstrate compassion, integrity, and respect for others and for a diverse patient population.
2. Demonstrate responsiveness to patient needs that supersedes self-interest.
3. Show respect for patient privacy and autonomy.

Systems-Based Practice

1. Develop mastering of delivering health care in different physical settings (outpatient clinic, inpatient rooms, OR, ER)
2. Demonstrate mastery of the safe and cost-effective use of diagnostic and imaging modalities.

3. Present cases at monthly Morbidity and Mortality conference to develop skills necessary to identify system errors and suggestions for systemic change.

Demonstrate strong understanding of medical pre-authorization and ICD and CPT coding.

Ped Oto Clinical Service Guidelines

For adenotonsillectomy procedures:

Preoperative room set-up:

- Eyes are taped
- Appropriate head draping
- Endotracheal tube is taped to it is situated at midportion of lower lip
- Table is turned 90 degrees
- Crowe-Davis or McIvor mouth gag is placed atraumatically
- Palate is palpated and uvula inspected prior to an adenoidectomy procedure

Postoperative assessment:

- Tonsil and adenoid bed assessed for bleeding
- Crowe-Davis or McIvor mouth gag is removed carefully
- Lips are checked for any burns or trauma
- Teeth are checked for chipping or loss
- Endotracheal tube placement is checked

Various attendings prefer different postoperative management of pain and antibiotic prophylaxis. Make sure to ask each attending prior to the start of the case what they prefer. Currently, Drs. Park, Grimmer, and Smith prefer Tylenol and Ibuprofen only for postoperative pain control in children younger than 6. Lortab may be given if needed, but not as the primary method of pain control. Dr. Muntz prefers to give amoxicillin prophylactically, and prefers Lortab for pain.

For pediatric airway procedures:

Preoperative steroids patients if extubation is anticipated

Preoperative room set-up:

- The plan for induction, securing the airway and planned airway procedures are discussed with the surgical team (anesthesiologist, nursing and technicians).
- All laryngeal and bronchoscopic equipment is checked before the patient is induced under anesthesia. This preoperative set up includes ensuring the suction canister is attached to tubing and catheters, video tower and camera is turned on and checked and that all the bronchoscopic equipment is assembled.
- Eyes are taped and head drape secured
- Tooth or mouth guard placed
- Table is rotated 90 degrees

For pediatric otology patients:

Otologic examination is difficult, and requires practice and experience. When working in the clinic, please take every opportunity to examine ears with the microscope and to practice pneumatic otoscopy. Also, remember to practice tuning-fork testing and cranial nerve examination. When imaging is ordered, review the x-rays and then review them again with the attending physician. Review the results of vestibular evaluation and audiograms as well.

For hearing loss patients, review the birth history, family history for hearing loss and possible etiologic factors. Review any images with the attending physician. The hearing assessment clinic provides an excellent opportunity to evaluate, diagnose and treat pediatric hearing loss patients in a multidisciplinary setting. Glean as much clinical insight and medical knowledge from pediatric audiology, otolaryngology and genetics.

All patients post tympanostomy tube placement receive vasocidin ear drops.

Expectations

The fellow will be the chief of the service and will be ultimately responsible for the clinical care of inpatients, operating room coverage, and consultations. This responsibility should prove to be a tremendous learning opportunity and will help prepare the fellow for a pediatric otolaryngology career.

Operative Experience

It is the fellow's responsibility to know which cases are scheduled throughout the upcoming week and establish appropriate resident coverage. Residents coming on service for the first time should learn to master minor pediatric otolaryngology procedures such as myringotomy and tube placement, tonsillectomy, adenoidectomy, nasal endoscopy, minor head and neck cases, and uncomplicated laryngoscopy/bronchoscopy. The junior resident should spend as much time as possible in the operating room participating in such cases until mastery has been achieved. The fellow and senior resident will participate in more advanced level training cases such otologic surgery, cochlear implantation, sinus surgery, congenital neck masses, vascular anomalies, cleft lip and palate, microlaryngeal surgery, bronchoscopy and airway reconstruction. In order to maximize the learning experience, the fellow and residents must prepare for more advanced cases by reviewing clinical notes, audiograms, clinical data, and imaging at least the day before the procedure. For minor cases it is important to generally understand the indications for surgery and review the history and other data before the procedure. Resident participation in a case will be dependent on their preparation and level of training.

Clinical Consults

The fellow will be ultimately responsible for all ER and inpatient consults. All members of the team will be expected to participate in seeing consults. Emergent consults should be seen immediately. Non-emergent consults can be seen when there is less pressing clinical demands. **Since many consults may require an operative procedure, make sure the child is made NPO if surgery is likely.** All consults must be staffed with the attending on call. Consults should be dictated into

HELP 2 immediately once it staffed with an attending. Do not dictate the consult until there has been communication with an attending regarding the patient.

Outpatient Clinic

The outpatient clinic affords an opportunity to see first-hand how pediatric patients with otolaryngologic diseases are evaluated and managed. The approach and management is often substantially different in children and can only be learned in the clinic setting. Residents should not leave clinic in order to see non-urgent consults unless conflicts arise regarding resident work hours. Residents should learn the work-up and management of common otolaryngologic diseases in pediatric patients. The fellow will fine tune his or her clinical skills. Common outpatient procedures include flexible endoscopy, nasal endoscopy, foreign body removal, and otomicroscopy. Each resident or fellow will be expected to participate in at least one clinic per week. The senior resident will need to attend the 3 specialty clinics during their rotation (e.g. trach vent clinic, hearing assessment or craniofacial clinic). The junior resident will need to attend at least the 3 specialty clinics by the end of their PGY2 year. The fellow will be expected to attend the 3 specialty clinics at least quarterly.

Clinical Service Responsibilities

Inpatient rounds will be completed prior to the start of clinic, OR, or conferences. With two residents and a fellow on service this should be achievable. Inpatients are to be rounded on twice daily. Consults need to be seen as often if active issues are ongoing. The fellow will need to communicate daily with each patient's attending. If the attending on record cannot be contacted, the attending on call or another attending should be contacted before any decisions are made regarding patient management or discharge.

Lacerations

Patients with complex lacerations will require prompt notification to the attending ENT physician. Non-complex lacerations will not require prompt notification to the attending physician. Photo documentation of the severity of the injury will need to be done for **all** cases. A decision regarding a transfer to the operating room will be made by the attending physician.

Duty Hours

A major priority will be compliance with resident and fellow work hours. It is expected that all inpatient consults and rounds will be completed by 8pm. Any cases that extend beyond that time will **not** be staffed by the PCMC residents. If the attending requires resident assistance, the residents on call will be used instead.

Weekend Rounds

One of the PCMC residents will be expected to round with the attending physician on call each morning on the weekends. All active pediatric inpatients will be expected to be evaluated at that time.

Conferences

The fellow and residents will be required to attend the following conferences:

1. Radiology conference- Held the third Monday of the month. The fellow is responsible for assembling a list of cases and emailing them to starlyn.brandt@imail.org by noon the Friday before the conference.
2. Vascular malformations- Held the second Wednesday of the month. The fellow or residents are expected to be able to present all the patients from the ENT service.
3. Interesting Case conference- Held the second Friday of each month. The fellow will coordinate this conference. Cases and relevant literature review will be presented by either the residents or the fellow.
4. Aerodigestive Conference

Fellow and Resident Priority List

Radiology, the vascular malformation clinic and interesting case conferences are mandatory for the residents and the fellow. The senior resident needs to attend at least one craniofacial clinic, trach vent clinic and hearing assessment clinic during his or her rotation. The fellow will be expected to attend at least one of the specialty clinics quarterly.

Monday:

- 1st: OR (Meier, Grimmer or Park)
- 2nd: Clinic (Muntz or Smith when in clinic)
- 3rd: OR (Grimmer/Park/Meier)

Tuesday:

- 1st: Clinic (Grimmer)
- 2nd: OR (Muntz/Meier/Smith)
- 3rd: HAC (Park) - The clinic is held on the 1st Tues of every month.

Wednesday:

- 1st: Clinic (Meier/Park @ PCMC)
- 2nd: OR (Muntz)
- 3rd: Clinic (Park/Grimmer @ UU)
- 4th: Trach Vent (Muntz)

Thursday:

- 1st Clinic (Muntz/Smith)
- 2nd: OR (Grimmer/Park)

Friday:

- 1st: OR (Shelton/Muntz/Smith)
- 2nd: Clinic (Meier/Park @ PCMC)
- 3rd: Clinic (Park/Meier @ UU)

If an attending needs resident coverage for an OR case, this discussion needs to be done at the attending level.