

The Otolaryngology Milestone Project

The Milestones provide a framework for the assessment of the development of the resident physician in key dimensions of the elements of physician competency in a specialty or subspecialty. The Milestones are designed only for use in evaluation of resident physicians in the context of their participation in Accreditation Council for Graduate Medical Education (ACGME)–accredited residency or fellowship programs. They neither represent the entirety of the dimensions of the 6 domains of physician competency, nor are they designed to be relevant in any other context.

Milestone Reporting

This document presents Milestones designed for programs to use in semiannual review of resident performance and reporting to the ACGME. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME competencies organized in a developmental framework from less to more advanced. They are descriptors and targets for resident performance as a resident moves from entry into residency through graduation. In the initial years of implementation, the Review Committee will examine Milestone performance data for each program's residents as 1 element in the Next Accreditation System (NAS) to determine whether residents overall are progressing.

For each period, review and reporting will involve selecting Milestone levels that best describe a resident's current performance and attributes. Milestones are arranged into numbered levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert. These levels do not correspond with postgraduate year of education.

Selection of a level implies that the resident substantially demonstrates the Milestones in that level, as well as those in lower levels (see FIGURE).

Level 1: The resident demonstrates Milestones expected of an incoming resident.

Level 2: The resident is advancing and demonstrates additional Milestones, but is not yet performing at a midresidency level.

Level 3: The resident continues to advance and demonstrate additional Milestones, consistently including the majority of Milestones targeted for residency.

Level 4: The resident has advanced so that he or she now substantially demonstrates the Milestones targeted for residency. This level is designed as the graduation target.

Level 5: The resident has advanced beyond performance targets set for residency and is demonstrating aspirational goals that might describe the performance of someone who has been in practice for several years. It is expected that only a few exceptional residents will reach this level.

Additional Notes

Level 4 is designed as the graduation *target* and *does not* represent a graduation *requirement*. Making decisions about readiness for graduation is the purview of the residency program director. Study of Milestone performance data will be required before the ACGME and its partners will be able to determine whether Milestones in the first 4 levels appropriately represent the developmental framework, and whether Milestone data are of sufficient quality to be used for high-stakes decisions.

Some Milestone descriptions include statements about performing independently. These activities must occur in conformity to ACGME supervision guidelines, as well as institutional and program policies. For example, a resident who performs a procedure independently must, at a minimum, be supervised through oversight.

ACGME Milestone Report Form

The FIGURE presents an example set of Milestones for 1 subcompetency in the same format as the Milestone Report Form. For each reporting period, a resident's performance on the Milestones for each subcompetency will be indicated by selecting the level of Milestones that best describes that resident's performance in relation to the Milestones.

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Inhalant Allergy — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> • Demonstrates familiarity with basic nasal anatomy and normal respiratory mucosa histology • Demonstrates familiarity with normal functions of nasal mucosa and nasal cavities • Demonstrates limited knowledge of allergy workup 	<ul style="list-style-type: none"> • Demonstrates basic understanding of derangements in nasal anatomy and mucosal inflammation • Knows pathophysiology of allergic rhinitis (AR) • Describes comorbidities in AR • Demonstrates familiarity with clinical presentations of allergic disease • Prescribes basic medical treatment for AR 	<ul style="list-style-type: none"> • Demonstrates knowledge of histopathology of allergic rhinitis and anatomic factors affecting the nasal airway • Knows pathophysiology of non-allergic rhinitis • Describes the natural history and components of severity in allergic disease • Demonstrates knowledge of testing methods in allergic disease • Prescribes advanced medical treatment for allergic disease 	<ul style="list-style-type: none"> • Demonstrates thorough understanding of anatomic impact of allergic inflammation on the nasal airway • Distinguishes presentations of allergic and non-allergic rhinitis patients; knowledge of cellular and molecular features of inhalant allergy • Describes systems for AR subtype and severity (e.g., seasonal vs. perennial, intermittent vs persistent, etc.) and incorporate knowledge of severity and natural history in patient management • Combines clinical features and test results to correctly diagnose allergic disease • Demonstrates a working knowledge of immunotherapy for allergic disease 	<ul style="list-style-type: none"> • Demonstrates advanced understanding of allergy diagnostic testing • Facile with multiple methods of immunotherapy
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:				

Selecting a response box in the middle of a level implies that Milestones in that level and in lower levels have been substantially demonstrated.

Selecting a response box on the line in between levels indicates that Milestones in lower levels have been demonstrated as well as **some** Milestones in the higher level(s).

FIGURE | EXAMPLE SET OF MILESTONES FOR 1 SUBCOMPETENCY IN THE ACGME MILESTONE REPORT FORM

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OTOLARYNGOLOGY MILESTONES				
PATIENT CARE				
Salivary Disease—Patient Care 1				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> Obtains basic history and physical examination Understands normal salivary gland function Knows treatment of sialadenitis Knows how to scrub; performs surgical time out; maintains sterile field 	<ul style="list-style-type: none"> Obtains focused history and physical examination, including comprehensive head and neck examination, neck and cranial nerve examination; orders appropriate laboratory studies, fine-needle aspiration (FNA), and radiologic studies Understands factors precipitating inflammatory salivary disease Discusses treatment modality options in general terms (including adjuvant treatment) Performs intraoperative patient preparation; raises skin flaps in appropriate plane; able to aesthetically close wound List some potential complications 	<ul style="list-style-type: none"> Interprets appropriate laboratory, pathologic, and radiologic studies Describes an accurate differential diagnosis of a salivary gland mass; able to clinically distinguish neoplastic from non-neoplastic etiologies Discusses appropriate therapeutic options and understands implications of those options Performs procedure with assistance; identifies neurovascular structures Recognizes common complications; obtains appropriate consultations for patient management 	<ul style="list-style-type: none"> Accurately tumor node metastasis stages a specific patient Makes correct diagnosis from clinical, radiologic, and pathologic information; knows histopathologic findings of common neoplastic processes Formulates appropriate treatment plan for a specific salivary gland cancer patient based on primary site, disease stage, and patient factors Completes procedure with oversight Recognizes and is able to treat and/or develop treatment plan for common complications 	<ul style="list-style-type: none"> Performs ultrasound-guided FNA of salivary gland mass Teaches pathophysiology Performs extended dissection of parotid bed neoplasm with preservation of neurovascular structures as appropriate; teaches procedure Treats complex complications
Aerodigestive Tract (ADT) Lesions—Patient Care 2				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> Obtains basic history and physical examination Demonstrates limited understanding of normal laryngeal function Demonstrates limited knowledge of treatment options 	<ul style="list-style-type: none"> Obtains focused history and physical examination, including comprehensive aerodigestive tract and cranial nerve clinic examination with recognition of normal anatomy and obvious abnormalities Understands normal laryngeal and esophageal function; understands factors precipitating inflammatory laryngeal disease Discusses treatment modality options in general terms Positions patient properly for laryngoscopy and sometimes able to visualize the larynx Positions patient properly for esophagoscopy and sometimes able to visualize the esophagus List some potential complications (eg, identifies and appropriately treats local injury from endoscopic instruments) 	<ul style="list-style-type: none"> Orders appropriate laboratory, functional, and radiologic studies; performs flexible and rigid endoscopic evaluation Knows differential diagnosis of vocal cord lesion; able to clinically distinguish neoplastic from non-neoplastic etiologies Discusses appropriate therapeutic options and understands implications of each Able to consistently visualize the larynx during laryngoscopy and perform binocular microlaryngoscopy Performs esophagoscopy with biopsy in patients with favorable anatomy Recognizes common complications; obtains appropriate consultations for patient management 	<ul style="list-style-type: none"> Interprets appropriate laboratory, functional, and radiologic studies Makes correct diagnosis from clinical, radiologic, and pathologic information; knows histopathologic findings of common neoplastic processes Formulates appropriate treatment plan for a specific vocal cord lesion patient based on lesion and patient factors Performs microlaryngoscopy consistently with complete exposure of the anterior commissure Recognizes and is able to treat and/or develop treatment plan for common complications 	<ul style="list-style-type: none"> Performs flexible fiberoptic laryngoscopy with manipulation with oversight Teaches pathophysiology Teaches management of complex ADT lesions Performs microlaryngoscopy in the difficult to expose patient with complete exposure of the anterior commissure Performs esophagoscopy with complex intervention efficiently in the difficult to expose patient Treats complex complications

Sleep Disordered Breathing (SDB)—Patient Care 3

<p>Level 1</p> <ul style="list-style-type: none"> Obtains general history and performs basic physical examination 	<p>Level 2</p> <ul style="list-style-type: none"> Recognizes signs and symptoms of SDB and the differences between children and adults; orders appropriate routine laboratory, radiologic, and sleep studies Demonstrates basic understanding of spectrum of sleep disorders in children and adults Demonstrates beginning understanding of treatment measures Performs tonsillectomy and/or adenoidectomy (T&A) on typical pediatric or adult patient Lists common potential complications 	<p>Level 3</p> <ul style="list-style-type: none"> Performs detailed examination with evaluation of upper airway anatomy and interprets basic diagnostic testing Demonstrates moderate understanding of spectrum of sleep disorders in children and adults Demonstrates deepening understanding of medical treatments, role of surveillance, and alternate therapies Performs palatopharyngoplasty on typical patient Lists rare complications; recognizes common complications and is able to initiate treatment in the typical patient 	<p>Level 4</p> <ul style="list-style-type: none"> Interprets examination and advanced diagnostic testing Demonstrates thorough understanding of spectrum of sleep disorders in children and adults Able to list and prioritize treatment options for the patient with SDB in complicated patient populations Performs T&A and palatopharyngoplasty on complex patients Recognizes and is able to treat and/or develop treatment plan for common and uncommon complications in the complex patient 	<p>Level 5</p> <ul style="list-style-type: none"> Teaches focused history and physical examination Recognizes interaction between SDB and other sleep disorders in children and adults Identifies indications and risks of nonsurgical treatment plans for sleep disorders other than SDB, and disorders of initiating and maintaining sleep Teaches T&A and palatopharyngoplasty
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Facial Trauma—Patient Care 4

<p>Level 1</p> <ul style="list-style-type: none"> Obtains history and performs basic physical examination Demonstrates basic knowledge of normal facial skeleton and relationships Demonstrates limited knowledge of treatment options Knows how to scrub; performs surgical time out Demonstrates limited familiarity with complications 	<p>Level 2</p> <ul style="list-style-type: none"> Recognizes symptoms of mandible and facial fractures; able to quickly assess airway, breathing, and circulation (ABCs) and need for urgent intervention Localizes zones of the traumatically involved facial skeleton (ie, frontal, orbital, midface, and mandible) using detailed familiarity with normal facial bony and soft-tissue anatomy Discusses treatment modality options in general terms; demonstrates limited knowledge of potential indications for operative open reduction and internal fixation (ORIF) of the spectrum of facial fractures Demonstrates beginning ability to apply maxillo-mandibular fixation hardware and to perform intraoral and external incisions Lists some potential complications 	<p>Level 3</p> <ul style="list-style-type: none"> Obtains focused history and performs focused examination, including airway evaluation and survey for other head and neck injuries; orders appropriate routine laboratory and radiologic studies Identifies common facial skeleton fracture patterns Discusses appropriate therapeutic options for major facial fracture types/patterns Facile at placing maxillary-mandibular fixation and establishing baseline patient occlusion; able to perform surgical approaches (location and extent) to visualize fractures and provide adequate exposure for ORIF Recognizes common complications; makes appropriate consultations for patient management 	<p>Level 4</p> <ul style="list-style-type: none"> Interprets appropriate laboratory and radiologic studies; identifies and orders necessary adjunctive studies (ie, angiography) Accurately diagnoses location and extent of specific facial trauma Develops appropriate treatment plan and performs ORIF for a facial fracture patient with combined mandible and midface fracture Performs uncomplicated mandibular ORIF Recognizes and is able to treat common complications 	<p>Level 5</p> <ul style="list-style-type: none"> Develops appropriate treatment plan for panfacial fracture patient Performs revision/infected mandibular fracture ORIF Treats complex complications
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Rhinosinusitis—Patient Care 5				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> ■ Obtains basic sinonasal symptom history and performs basic head and neck examination ■ Recognizes symptoms that indicate sinonasal pathology ■ Demonstrates minimal knowledge of treatment options ■ Performs surgical time out; familiar with preoperative documentation requirements (eg, consent, history and physical examination, imaging); knows how to scrub ■ Lists some complications of rhinosinusitis 	<ul style="list-style-type: none"> ■ Obtains focused history and physical examination, including detailed sinonasal symptom inventory ■ Explains the diagnostic distinction between viral upper respiratory infections (URI) and acute bacterial sinusitis ■ Discusses treatment modality options in general terms; prescribes medical therapy for simple common conditions (ie, viral URI, acute bacterial rhinosinusitis) ■ Performs intraoperative patient nasal decongestion and local injections under endoscopic guidance; able to apply/register stereotactic surgical guidance system ■ Lists some potential complications of sinus surgery 	<ul style="list-style-type: none"> ■ Performs nasal endoscopy and recognizes basic sinonasal pathology; demonstrates basic understanding of appropriate laboratory, pathologic, and radiologic diagnostic studies ■ Provides a differential diagnosis that includes the most common spectrum of bacterial sinusitis disease processes ■ Discusses appropriate therapeutic options for chronic rhinosinusitis (CRS) and CRS with nasal polyps ■ Performs endoscopic sinus surgery (ESS) procedure with guidance; recognizes endoscopic surgical landmarks ■ Recognizes common complications; appropriate management for common complications 	<ul style="list-style-type: none"> ■ Identifies nasal endoscopic pathologic findings in the previously operated patient; facile with interpretation/use of appropriate laboratory, pathologic, and radiologic diagnostic studies ■ Distinguishes the pathophysiologic and clinical presentations of the various subtypes of chronic rhinosinusitis ■ Formulates appropriate treatment plan for patient with acute exacerbations of CRS or recurrent polypoid disease; tailors medical therapy to patient's symptoms level and disease presentation ■ Completes ESS procedure with oversight ■ Recognizes and is able to treat and/or develop treatment plan for significant complications 	<ul style="list-style-type: none"> ■ Teaches nasal endoscopy ■ Recognizes and diagnoses the possible uncommon etiologies of chronic bacterial sinusitis refractory to standard therapy ■ Provides treatment of recurrent/extensive frontal sinus disease ■ Performs revision and advanced ESS ■ Treats complex complications

Nasal Deformity—Patient Care 6				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> ■ Obtains basic history and performs basic head and neck examination ■ Demonstrates minimal knowledge of treatment options ■ Performs surgical time out; knows how to scrub 	<ul style="list-style-type: none"> ■ Obtains focused history and physical examination ■ Demonstrates understanding of normal nasal physiology ■ Discusses treatment modality options in general terms; prescribes medical therapy for simple common condition ■ Prepares patient intraoperatively ■ Plans, performs, and closes incisions that would be needed for adequate exposure; able to intraoperatively prepare patient (ie, pack nose with decongestant pledgets, inject nose with local anesthetic) ■ Demonstrates limited knowledge of potential complications 	<ul style="list-style-type: none"> ■ Performs limited dynamic nasal function analysis and anterior rhinoscopy ■ Differentiates between variable and fixed nasal obstruction contributors ■ Discusses appropriate therapeutic options for common nasal deformities ■ Plans and performs incisions that would be needed for both intranasal and external rhinoplasty; cognizant of landmarks that mark important neurovascular structures ■ Elevates septal mucosal flaps adequately to address identified structural abnormalities ■ Recognizes common complications 	<ul style="list-style-type: none"> ■ Performs comprehensive dynamic nasal function analysis; identifies aesthetic/cosmetic abnormalities; correlates examination findings with underlying structural etiologies ■ Identifies specific components of nasal pathophysiology in functional obstruction ■ Formulates appropriate treatment plan for patient with fixed and/or dynamic nasal obstruction ■ Resects or augments bony or cartilaginous framework, places and secures grafting material, and performs osteotomies ■ Resects, recontours, and corrects septal abnormalities ■ Recognizes and is able to treat and/or develop treatment plan for common complications 	<ul style="list-style-type: none"> ■ Performs analysis in revision/ postsurgical setting ■ Formulates appropriate treatment plan for patient requiring revision surgery ■ Performs revision rhinoplasty, including harvest and placement of graft material ■ Performs revision septal surgery, including correction of complex septal abnormalities ■ Treats complex complications

Chronic Ear—Patient Care 7				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> Performs general history and physical examination Knows some common symptoms of ear infections Demonstrates limited knowledge of chronic ear disease Demonstrates little knowledge of medical/surgical treatments for ear disease Knows how to scrub; performs surgical time out; maintains sterile field 	<ul style="list-style-type: none"> Obtains pertinent otologic history and performs handheld otoscopy; differentiates middle ear/mastoid disease from otitis externa; performs cranial nerve examination Identifies Eustachian tube dysfunction and the normal and abnormal physiologic contributors Prescribes appropriate systemic and/or topical antibiotic therapy for chronic otitis media; understands basics of postoperative wound care Positions, preps, and drapes patient; able to inject local anesthetic; makes postauricular incision; able to aesthetically close wound Lists potential complications of ear surgery 	<ul style="list-style-type: none"> Performs reliable otomicroscopic examination; orders appropriate audiometry, laboratory, and radiologic studies Clinically differentiates otitis media (OM), otitis externa (OE), necrotizing OE, chronic otitis media (COM), mastoiditis, and cholesteatoma Recognizes clinical failure of medical management; describes surgical risks, benefits, and alternatives; understands concept of recidivism and understands need for long-term surveillance plan Performs ear canal incisions and elevates tympanomeatal flap; performs cortical mastoidectomy and identifies antrum/horizontal semicircular canal; skeletonizes posterior canal wall Able to manage routine postoperative complications 	<ul style="list-style-type: none"> Accurately interprets appropriate diagnostic studies; understands the indications for operative intervention; recognizes acute complications in the setting of COM Understands mechanisms underlying the development of intratemporal and intracranial complications of chronic ear disease Formulates appropriate treatment plan for care of a patient with complications of chronic ear disease Removes granulation tissue and/or cholesteatoma from the middle ear/mastoid; skeletonizes vertical segment of the facial nerve; performs tympanoplasty and/or ossiculoplasty Recognizes major complications 	<ul style="list-style-type: none"> Interprets less commonly utilized diagnostic tests Manages COM in an only hearing ear Performs canal wall down mastoidectomy skillfully; able to proficiently perform facial recess approach Treats major postsurgical complications

Pediatric Otitis Media—Patient Care 8				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> ■ Performs basic history and physical examination ■ Understands concept of OM and OE ■ Participates in surgical time out 	<ul style="list-style-type: none"> ■ Performs focused clinical examination and is able to correctly diagnose acute OM, OM with effusion, and OE some of the time; knows when to order basic audiometric testing ■ Describes the etiologic organisms most commonly associated with OM and OE; understands the predisposing factors associated with each type of ear infection ■ Appropriately prescribes topical and/or oral antibiotics for ear infections; demonstrates familiarity with effectiveness/ineffectiveness of nonantibiotic medications and alternative treatments ■ Inserts ear speculum and safely cleans cerumen from ear canal ■ Lists potential complications 	<ul style="list-style-type: none"> ■ Performs pneumatic otoscopy and accurately diagnose acute OM, OM with effusion, and OE; knows when additional imaging is required for diagnosis ■ Accurately diagnoses patients along the OM natural history spectrum and identifies ramifications of treated/untreated OM ■ Recognizes treatment failures/refractoriness and indications for surgical intervention ■ Identifies tympanic membrane and external auditory canal landmark and structures; able to consistently perform appropriate myringotomy ■ Recognizes common complications; obtains appropriate consultations for patient management 	<ul style="list-style-type: none"> ■ Skilled pneumatic otoscopist in children of all ages; recognizes complications of acute OM, OM with effusion, and OE ■ Diagnoses intracranial and extracranial complications of ear infections ■ Treats complications of ear infections ■ Places tympanostomy tube safely in all patients with easy anatomy and in some patients with difficult anatomy ■ Recognizes and is able to treat and/or develop treatment plan for common complications 	<ul style="list-style-type: none"> ■ Skilled pneumatic otoscopist in syndromic children ■ Places tympanostomy tube safely in patients with difficult anatomy

MEDICAL KNOWLEDGE				
Upper Aerodigestive Tract (UADT) Malignancy—Medical Knowledge 1				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> ■ Demonstrates basic understanding of UADT and neck anatomy ■ Knows normal UADT function (mastication, deglutition, respiration, and phonation) ■ Obtains basic history and physical examination 	<ul style="list-style-type: none"> ■ Demonstrates moderate knowledge of UADT and neck anatomy; teaches anatomy to medical students in the operating room (OR) ■ Knows abnormal UADT physiologic function and locoregional manifestations; knows tobacco is correlated with UADT cancer ■ Knows most common disease state presentations for UADT malignancies ■ Performs focused history and physical examination, including clinic laryngoscopy; understands appropriate laboratory studies, fine-needle aspiration, and radiologic studies for workup ■ Describes basic treatment algorithm for UADT malignancies 	<ul style="list-style-type: none"> ■ Demonstrates proficient knowledge of normal anatomy; teaches anatomy to junior residents in the OR ■ Knows major risk factors for UADT cancer according to type of cancer ■ Knows most common disease progression routes for UADT malignancy ■ Interprets appropriate laboratory, pathologic, and radiologic studies ■ Understands concepts of neo-adjuvant, primary, and adjuvant treatments; describes options for securing the difficult airway in the OR 	<ul style="list-style-type: none"> ■ Correlates anatomic knowledge with disease physical examination and radiologic findings ■ Understands molecular basis for UADT cancer; knows benign and malignant differential diagnoses of common site presentations ■ Knows staging system for most common UADT cancers, and can accurately stage using available clinical and radiologic data ■ Understands the prognostic indicators of tumor pathology, including molecular markers ■ Describes treatment options based on primary site, disease stage, and patient factors 	<ul style="list-style-type: none"> ■ Gives lectures on anatomy ■ Articulates treatment protocol specifics for primary chemoradiation therapy

Hearing Loss—Medical Knowledge 2				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> ▪ Demonstrates limited knowledge of temporal bone and cochleovestibular anatomy ▪ Demonstrates limited understanding of the physiology of hearing ▪ Demonstrates limited understanding of the natural history of hearing loss 	<ul style="list-style-type: none"> ▪ Demonstrates proficient knowledge of temporal bone and cochleovestibular gross anatomy/embryology ▪ Understands normal middle ear mechanics and cochlear physiology ▪ Understands the natural history of presbycusis and noise-induced hearing loss ▪ Recognizes normal ear examination and normal audiometry; able to identify basic hearing loss classifications on an audiogram; demonstrates limited knowledge of options for diagnostic workup of hearing loss ▪ Demonstrates awareness of nonsurgical aural rehabilitation options; understands importance of hearing surveillance 	<ul style="list-style-type: none"> ▪ Demonstrates proficient knowledge of normal temporal bone and cochleovestibular histopathology ▪ Generates differential diagnosis for hearing loss in adult patients ▪ Understands the natural history of adult onset hearing loss ▪ Recognizes an abnormal ear examination/audiogram; orders appropriate routine audiometric, laboratory, and imaging tests for workup ▪ Demonstrates comprehensive awareness of aural rehabilitation options, including surgical management of hearing loss 	<ul style="list-style-type: none"> ▪ Understands congenital variations of temporal bone and cochleovestibular anatomy ▪ Generates differential diagnosis for hearing loss in children, and identifies uncommon causes of hearing loss in adults ▪ Understands the natural history of pediatric hearing loss and uncommon causes of adult-onset hearing loss ▪ Considers unusual causes for hearing loss and orders/interprets appropriate advanced audiometric, laboratory, and imaging studies ▪ Describes indications/contraindications and complications of the surgical aural rehabilitation techniques; tailors aural rehabilitation to patient-specific needs 	<ul style="list-style-type: none"> ▪ Demonstrates knowledge of central auditory pathways

Dysphagia-Dysphonia—Medical Knowledge 3				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> ■ Demonstrates limited understanding of aerodigestive functional anatomy ■ Demonstrates limited understanding of common voice and swallowing disorders ■ Demonstrates limited knowledge of disease progression and sequelae of untreated voice and swallowing disorders ■ Obtains basic history and physical examination ■ Demonstrates minimal understanding of treatment options and rationales, and risks/benefits of each treatment option 	<ul style="list-style-type: none"> ■ Understands basic anatomy and physiology of voice and swallowing ■ Demonstrates basic understanding of common voice and swallowing disorders ■ Understands age-related changes to voice and swallowing ■ Obtains focused history and physical examination, including clinic laryngoscopy; able to list appropriate diagnostic modalities for workup of voice and swallowing disorders ■ Demonstrates beginning understanding of treatment options and rationales, and risks/benefits of each treatment option 	<ul style="list-style-type: none"> ■ Demonstrates midlevel understanding of anatomy and physiology of voice and swallowing ■ Demonstrates midlevel understanding of common voice and swallowing disorders ■ Demonstrates knowledge of disease progression and sequelae of untreated voice and swallowing disorders ■ Interprets appropriate laboratory, pathologic, and radiologic studies ■ Demonstrates midlevel understanding of treatment options and rationales, and risks/benefits of each treatment option 	<ul style="list-style-type: none"> ■ Demonstrates thorough knowledge of anatomy and physiology of voice and swallowing ■ Demonstrates comprehensive understanding of most voice and swallowing disorders, including voice and swallowing manifestations of systemic diseases (ie, autoimmune disorders, sarcoid, neuromuscular disorders) ■ Articulates comprehensive understanding of risk factors and timeframe for malignant transformation of premalignant conditions (laryngopharyngeal reflux disease, Barrett's, Dysplasia/Leukoplakia, recurrent respiratory papillomatosis) ■ Correlates laboratory and radiologic workup with clinical diagnosis ■ Demonstrates understanding of treatment options and rationales, risks/benefits of each treatment option, and surveillance algorithms for malignant disease 	<ul style="list-style-type: none"> ■ Teaches pathophysiology

Inhalant Allergy—Medical Knowledge 4				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> ▪ Demonstrates familiarity with basic nasal anatomy and normal respiratory mucosa histology ▪ Demonstrates familiarity with normal functions of nasal mucosa and nasal cavities ▪ Demonstrates limited knowledge of allergy workup 	<ul style="list-style-type: none"> ▪ Demonstrates basic understanding of derangements in nasal anatomy and mucosal inflammation ▪ Knows pathophysiology of allergic rhinitis (AR) ▪ Describes comorbidities in AR ▪ Demonstrates familiarity with clinical presentations of allergic disease ▪ Prescribes basic medical treatment for AR 	<ul style="list-style-type: none"> ▪ Demonstrates knowledge of histopathology of AR and anatomic factors affecting the nasal airway ▪ Knows pathophysiology of nonallergic rhinitis ▪ Describes the natural history and components of severity in allergic disease ▪ Demonstrates knowledge of testing methods in allergic disease ▪ Prescribes advanced medical treatment for allergic disease 	<ul style="list-style-type: none"> ▪ Demonstrates thorough understanding of anatomic impact of allergic inflammation on the nasal airway ▪ Distinguishes presentations of allergic and nonallergic rhinitis patients; demonstrates knowledge of cellular and molecular features of inhalant allergy ▪ Describes systems for AR subtype and severity (eg, seasonal versus perennial, intermittent versus persistent, etc) and incorporates knowledge of severity and natural history into patient management ▪ Combines clinical features and test results to correctly diagnose allergic disease ▪ Demonstrates a working knowledge of immunotherapy for allergic disease 	<ul style="list-style-type: none"> ▪ Demonstrates advanced understanding of allergy diagnostic testing ▪ Is facile with multiple methods of immunotherapy

SYSTEMS-BASED PRACTICE									
Patient Safety—Systems-Based Practice 1									
Level 1	<ul style="list-style-type: none"> Understands the need for formal patient safety measures (eg, surgical time out) 	Level 2	<ul style="list-style-type: none"> Participates in the use of tools to prevent adverse events (eg, checklists and briefings) Understands and uses chain of command to develop and implement patient care plans (junior to senior resident to attending) 	Level 3	<ul style="list-style-type: none"> Consistently uses tools to prevent adverse events (eg, checklists and briefings) Identifies potential patient safety issues (patient positioning in OR, aspiration risk) and means to prevent those problems Presents at morbidity and mortality (M&M) conference (organizes data and identification of some pertinent patient safety issues) 	Level 4	<ul style="list-style-type: none"> Advocates for quality patient care and optimal patient care systems Analyzes M&M findings and provides feedback to improve patient safety 	Level 5	<ul style="list-style-type: none"> Educates other services on patient safety issues in otolaryngology—head and neck surgery
Resource Utilization—Systems-Based Practice 2									
Level 1	<ul style="list-style-type: none"> Uses resources (social work, patient care manager) to coordinate patient care 	Level 2	<ul style="list-style-type: none"> Actively functions as part of an interdisciplinary team to care for patients Aware of socioeconomic issues in patient care and takes those into consideration when developing patient care plans 	Level 3	<ul style="list-style-type: none"> Incorporates cost issues into care decisions Contributes to leadership of the interdisciplinary care team Uses technology and other hospital/clinic resources in patient care 	Level 4	<ul style="list-style-type: none"> Practices cost-effective care (eg, managing length of stay, operative efficiency) Leads interdisciplinary team in patient care 	Level 5	<ul style="list-style-type: none"> Designs measurement tools to monitor and provide feedback to providers/teams on resource consumption to facilitate improvement
PRACTICE-BASED LEARNING AND IMPROVEMENT									
The ability to investigate and evaluate the care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning—Practice-Based Learning and Improvement									
Level 1	<ul style="list-style-type: none"> Is aware of one's own level of knowledge and uses feedback from teachers, colleagues, and patients Identifies learning resources 	Level 2	<ul style="list-style-type: none"> Continually seeks and incorporates feedback to improve performance Develops a learning plan and uses published review articles and guidelines 	Level 3	<ul style="list-style-type: none"> Demonstrates improvement in clinical thought and action based on continual self-assessment Selects an appropriate evidence-based information tool to answer specific questions 	Level 4	<ul style="list-style-type: none"> Demonstrates consistent behavior of incorporating evidence-based information in common practice areas Organizes educational activities at the program level 	Level 5	<ul style="list-style-type: none"> Is competent at performing meta-analyses to answer complex patient care questions Is a sophisticated user of learning resources

PROFESSIONALISM				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> ▪ Demonstrates behavior that conveys caring, honesty, and genuine interest in patients and families ▪ Exhibits professional behavior (eg, reliability, industry, integrity, and confidentiality) ▪ Maintains respect for patient confidentiality 	<ul style="list-style-type: none"> ▪ Is aware of ethical issues in patient care, including issues of autonomy, end-of-life care, and research ethics ▪ Recognizes individual limits in clinical situations and asks for assistance when needed ▪ Understands and manages the issues related to fatigue and sleep deprivation ▪ Completes paperwork, administrative tasks, and assignments in a timely manner 	<ul style="list-style-type: none"> ▪ Recognizes ethical issues in practice and is able to discuss, analyze, and manage common ethical situations ▪ Displays sensitivity and responsiveness toward all patient populations 	<ul style="list-style-type: none"> ▪ Analyzes and manages ethical issues in complicated and challenging situations ▪ Develops a mutually agreeable care plan in the context of conflicting physician and patient values and beliefs 	<ul style="list-style-type: none"> ▪ Helps lead institutional and organizational ethics programs

INTERPERSONAL COMMUNICATION SKILLS				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> ▪ Develops a positive relationship with patients and understands patients' and families' perspectives ▪ Utilizes interpreters as needed 	<ul style="list-style-type: none"> ▪ Effectively communicates during transitions of care ▪ Communicates with patients and families, taking into account the socioeconomic and cultural backgrounds of these individuals ▪ Ensures that the medical record is timely, accurate, and complete 	<ul style="list-style-type: none"> ▪ Sustains effective relationships with services requesting OHNS consultation ▪ Works effectively as a member of a health care team ▪ Uses multiple forms of communication (eg, e-mail, patient portal, social media) ethically and with respect for patient privacy 	<ul style="list-style-type: none"> ▪ Develops working relationships across specialties and systems of care ▪ Organizes and facilitates family/health care team conferences 	<ul style="list-style-type: none"> ▪ Develops models/approaches to managing difficult communications ▪ Coaches others to improve communication skills