

University of Minnesota Graduate Medical Education

Department of Otolaryngology Neurotology Fellowship

Manual Supplement and Educational Program/Curriculum

AY 2026-2027

This Neurotology Fellowship Manual Supplement and Educational Program/Curriculum is intended for use together with the Graduate Medical Education Institution Policy Manual, available online at <http://z.umn.edu/gmeim>. The Institution Policy Manual contains information about benefits, policies and procedures that apply to all residents and fellows in a training program at the University of Minnesota. Should information in the Program Manual conflict with the Institution Manual, the Institution Manual takes precedence.

It is also intended for use with the Department of Otolaryngology Program Policy and Procedure Manual, available online at: <http://z.umn.edu/enthandbook>. The Department Policy Manual contains information about policies and procedures that apply to all residents and fellows in a training program in the Department of Otolaryngology at the University of Minnesota.

Department of Otolaryngology Neurotology Fellowship Program Mission Statement

The goals of the Neurotology Fellowship are to enable the fellow to develop expertise in the diagnosis and medical/surgical management of conditions relating to the discipline of Otolaryngology- Neurotology, and to develop the skill set to contribute as a teacher and researcher in the field of Otolaryngology-Neurotology

Program Supplement Information

This Neurotology Fellowship Program Supplement outlines the educational and curriculum goals for fellow and is intended for use together with the Graduate Medical Education Institution Policy Manual, available online at: <http://z.umn.edu/gmeim> and the [Department of Otolaryngology Program Policy and Procedure Manual](#)

ACGME Program Requirements for Graduate Medical Education in Neurotology

Link:

https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/286_Neurotology_2020.pdf?ver=2020-06-18-152443-873

STIPEND/PAYCHECKS

Please see the [Institutional Policy Manual](#) for information on institutional stipend policies.

Stipends are distributed on a bi-weekly basis, with benefits, taxes, and fees deducted as applicable. Direct deposit is highly preferred, and can be set up via your [MyU](#) account, under the 'My Pay' tab. You can also access tax documents and current and past pay statements in this section.

If there are any questions or concerns about your stipend, please contact Kirk Skogen at 612-625-3954 or k-skog@umn.edu

[Base stipend rates](#) for 2026-2027 are:

Step 6: \$85,134 (approximately \$3,261.83 gross per biweekly stipend)

Step 7: \$87,621 (approximately \$3,357.13 gross per biweekly stipend)

Base stipend rates for 2026-2027 will be effective as of June 1, 2026

Stipends for Academic Year 2026-2027 are subject to collective bargaining with the Council of Interns and Residents (CIR). Accordingly, the stipend schedule may be modified as a result of those negotiations.

EDUCATIONAL PROGRAM & CURRICULUM

ACCREDITATION

The Neurotology Fellowship Program at University of Minnesota is accredited by the Accreditation Council for Graduate Medical Education (ACGME). For the most up-to-date information on accreditation, visit the ACGME's website, www.acgme.org.

ACGME CASE LOG

Neurotology fellows must maintain a record of their surgical procedures on the Resident Case Log System provided by the Accreditation Council for Graduate Medical Education (ACGME) at www.acgme.org. If you don't receive an initial login and password directly from ACGME, contact the Program Coordinator at otoed@umn.edu.

Include procedures performed in clinic as well as in the operating room.

ACGME's Otolaryngology Residency Review Committee highly recommends that residents/fellows log their cases on a weekly, or more frequent, basis, so that procedures don't become lost or forgotten. Residents/fellows are able to view their case logs at any time, and can correct entries as needed. The Program Director is able to, at any time, review the operative data submitted by the fellows. A number of statistics regarding operative data are available on the ACGME web site (password protected) for access by residents/fellows and program directors, including cumulative national medians, means and standard deviations for each procedure category, subdivided by year of otolaryngology training. Program Directors are able to scan the case logs of each of their residents/fellows, tagged for procedure experiences 1 standard deviation or more below the national norms per fellow year of training, so they can tailor rotations accordingly.

Residents/fellows will be able to print out their cumulative operative experiences.

ACGME will provide the American Board of Otolaryngology with the operative experience report it requires when the resident/fellow applies for examination.

Resident/fellow logging of procedures relies solely on the AMA's CPT coding system. The opportunity to use the CPT codes prepares the residents/fellows for coding procedures after the completion of training.

The one, and significant, deviation from CPT coding rules allows for "unbundling" so that all procedures or significant segments of such done by each resident/fellow can be captured. Ample samples of "unbundling" acceptable for resident/fellow reporting purposes have been placed as a link on the Resident Case Log web site.

Categories of resident/fellow involvement in a surgical procedure include “resident surgeon,” “assistant surgeon” and “resident supervisor.” Definitions of these categories are available on the resident case log web site.

AMERICAN BOARD OF OTOLARYNGOLOGY

Board certification, Otolaryngology: Fellows are expected to take the Otolaryngology certification exam during their fellowship. Fellows will be given time for preparation for and participation in this examination. Visit the American Board of Otolaryngology web site at www.aboto.org for the most up-to-date information on requirements and deadlines.

Board certification, Neurotology: This program is designed to prepare its graduates to sit for the neurotology certifying examinations offered by the American Board of Otolaryngology (ABOto). Requirements fellows must fulfill for certification are included in the American Board of Otolaryngology Booklet of Information. Fellows should visit the ABOto web site at www.aboto.org for the most up-to-date requirements for certification.

EDUCATIONAL GOALS AND OBJECTIVES

Introduction: The neurotology fellowship consists of a comprehensive course of study and surgical apprenticeship with inpatient and outpatient experience. The training program is based at the University of Minnesota Medical Center. At this center, virtually all cases are seen and evaluated. In some special cases, it may be necessary to operate at other facilities due to the cooperative nature of the neurotology fellowship. Because of the nature of the work, the program does not have specific rotations at each institution, but works at all in an integrated manner with program faculty. All institutions are less than 20 minutes apart. This allows for flexibility in scheduling. Clinical teaching faculty members are shared between the facilities and travel with the fellow. Insurance issues, community support and other issues seem to determine where a patient will receive care.

Fellowship Goals: The major goals of the neurotology fellowship are:

1. Develop expertise in the diagnosis and medical/surgical management of conditions relating to the discipline of Otology-Neurotology.
2. Develop the skill set to contribute as a teacher and researcher in the field of Otology and Neurotology.

ACGME CORE COMPETENCIES

- Patient Care: Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
- Medical Knowledge: Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.
- Practice-based Learning and Improvement: Fellows must demonstrate the ability to investigate

and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

- Fellows are expected to develop skills and habits to be able to meet the following goals:
Interpersonal and Communication Skills: Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
- Professionalism: Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
- Systems-based Practice: Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

NEUROTOLOGY FELLOWSHIP CLINICAL/SURGICAL GOALS AND OBJECTIVES

Graded Responsibility:

Fellows are assigned incrementally increasing responsibility and independence during their training appropriate for their demonstrated level of competency and professional development (as assessed by the supervising physicians), according to a three-tiered format as shown below. Performance expectations, by quarter, for each learning objective, as detailed below, are indicated by B, D, and P.

Example grading chart can be found at the end of this supplemental document.

	<u>Level of responsibility/ independence by proficiency level*</u>		
Function/ activity	Beginning (B)	Developing (D)	Proficient (P)
Clinical data collection	independent, with staff supplementation	independent, with staff confirmation	independent, with selective staff confirmation
Formulation of clinical assessments/ plans	jointly with staff	independent, with staff confirmation	independent, with selective staff confirmation
Procedural/surgical skills	Requires staff assistance for completion of many tasks. Fails to recognize problems until late.	Occasionally requires staff intervention. Recognizes problems early but may not avoid them or solve them	Operates without staff involvement. Recognizes problems and avoids or solves them
Communication of recommendations to 1 ^o teams/ referring MDs	after discussion with staff	preliminary, independent; final, after discussion with staff	independent, with selective staff confirmation

*As assessed by supervising faculty based on observation of fellow's performance. Clinical proficiency levels correspond approximately with the first, second, and third 4-month blocks of clinical experience, but individual fellows move through the levels at different rates depending on their rate of developing the relevant competencies.

OBJECTIVES:

The learning objectives for the fellowship are outlined below. Each objective is referenced to the ACGME core competency or competencies it addresses. Patient Care=PC, Medical Knowledge=MK, Professionalism=Prof, Communication Skills=CS, Practice Based learning and Improvement=PBLI, and Systems-based practice=SBP.

Initial Six Months: Upon completion of the first six months of training the fellow is expected to:

- Conduct a thorough neurologic history (PC, CS).
- Perform a basic neurologic physical examination (PC).
- Display a systems approach to their practice of neurology (MK, PC).
- Develop an understanding of the need to control medical systems (MK, PC).
- Demonstrate a basic knowledge of neurologic pathophysiology (MK).
- Demonstrate skill in temporal bone surgery (PC)
- Effectively teach residents basic skills in ear surgery (PBLI, CS)

Neurologic history and physical exam:

Year 1: Basic neurologic history and physical exam principles that were taught in residency will be refined and improved. The fellow is expected to refine skills and to work in the clinic and OR with the faculty and to reinforce skills through direct observation, hands-on experience and teaching students

- Increase skill in use of otoscope and clinic microscope (PC)
- Learn proper use of tuning forks (PC)
- Demonstrate proficiency in the cranial nerve exam (MK, PC)
- Demonstrate proficiency in cerebellar testing (PC, MK)
- Demonstrate appropriate history-taking skills for patients with chronic ear disease, hearing loss, various causes of vertigo, acoustic neuromas and skull base tumors (PC, MK, CS).
- Effectively differentiate between various causes of vertigo (PC, MK)
- Develop differential diagnosis for the vertiginous patient (PC, MK)
- Understand the spectrum of physical findings for chronic ear disease (MK)

Understanding vestibular systems: Basic understanding of the anatomy and physiology of the vestibular system that was learned in residency is enhanced through lecture, hands on experience and reading

Year 1 Objectives:

- Understand anatomy and physiology of the vestibular apparatus – function of utricle, saccule, and semicircular canals (MK).
- Understand pathologic conditions of the vestibular system and their clinical presentations: Ménière's disease, benign positional vertigo, labyrinthitis, stroke, multiple sclerosis and aging (MK, PC).
- Understand the central vestibular pathways and their connections in the brainstem,

cerebellum, cerebral cortex and spinal tracts (MK)

- Understand physiologic basis for postural control, visual tracking via the vestibulo-ocular reflex (MK)
- Understand the components and relevance of electronystagmogram (videonystagmogram): caloric testing, test of vestibulo-ocular reflex, positional testing (MK, PC).

Year 2 Objectives: During the second year of training the fellow will participate in once a week sessions at the balance center to gain understanding of vestibular rehabilitation. This will be didactic and hands-on learning of the appropriate evaluation of the dizzy patient from the perspective of the physical therapist.

- Understand major vestibular rehabilitation strategies
- Learn major techniques of vestibular rehabilitation.
- Understand the utility and execution of various rehabilitation exercises.
- Understand falls prevention and associated patient safety issues
- Demonstrate an understanding of the basics of vestibular testing including ENG tests, rotational chair testing and posturography.
- Demonstrate the ability to interpret ENG, rotational chair and posturography raw data
- Interpret data from advanced vestibular including: bilateral vestibular weakness, measurements and mechanisms of central compensation, natural history of the manifestations of vestibular weakness

Indications and contraindications for otological and neurotological surgical procedures:

Objectives:

- Describe surgical options for tympanic membrane perforation without cholesteatoma (PC, MK).
- Understand the risks, benefits and alternatives of differing surgical techniques including wall up and wall down (PC, MK, SBP).
- Understand surgical options for cholesteatoma (PC, MK)
- Understand indications for ossicular chain reconstruction, mastoidectomy, staging vs. single-stage repair (PC, MK).
- Discuss recurrence rates, graft failure rates, prosthesis extrusion rates and complication rates (PC, MK).
 - Understanding of the cholesteatoma literature will be expected (PBLI)
- Understand indications and contraindications for stapes surgery
 - Demonstrate an understanding of risks and benefits of surgery, including complication rates, benefits of surgical techniques and prosthesis choice (PC, SBP).
 - Understand the indications for hearing aids vs. surgery will be (PC, SBP)..
 - Understand the risks and benefits of revision stapes surgery (PC, SBP)
 - Understand the use of lasers in stapes surgery, particularly, laser choice and safety (PC, SBP).
- Demonstrate appropriate decision making for patients who have Ménière's disease(PC, MK, PBLI).
 - This will include indications and contraindications for endolymphatic sac decompression, vestibular nerve section, transtympanic dexamethasone and

gentamicin perfusion, labyrinthectomy and Meniett® device.

- Risks of hearing loss, vertigo control rates and other complications will be understood.
- In-depth knowledge of the Ménière's literature is expected
- Understand natural history, medical and surgical management of acoustic neuroma patients (PC, MK).
 - This will include understanding of suboccipital, translabyrinthine and middle fossa approaches.
 - Facial nerve function and hearing preservation rates for each of the above- mentioned surgical procedures will be understood.
 - Indications for each approach will be mastered. Indications for observation of tumors will be understood.
 - Indications for stereotactic radiation therapy will be discussed. Participate fully in Gamma Knife use with the staff
 - Stereotactic radiation literature will be reviewed
 - Cranial nerve outcomes following stereotactic radiation will be understood
 - Tumor control rates will be understood
 - Dosimetry and treatment planning introduced through reading and hands- on experience with the staff
 - Indications and contraindications taught

Indications and contraindications for skull base tumors:

The fellows will attend the Craniofacial Skull Base Clinic with neurosurgery and neurotology services (CFSB) to develop understanding in the surgical approaches to treatment of glomus tumors, meningiomas, temporal bone malignancies and other tumors.

Year 1 Objectives:

- Demonstrate a basic understanding of surgical approaches including infratemporal fossa approach, transpetrosal approaches.

Year 2 Objectives:

- Demonstrate proficiency in skull base reconstruction options and techniques including:
 - prevention of CSF leak with vascularized grafts,
 - speech and swallowing rehabilitation with various vocal cord mobilization techniques, and
 - velopharyngeal insufficiency correction
- Perform thorough patient examination and appropriate evaluation of patients presenting in clinic (PC, MK, CS, Prof)
- Demonstrate the ability to conduct appropriate pre-operative planning (PC, SBP)
- Work effectively as a member of the clinic team and the surgical team (PC, SBP, Prof).

Perioperative care of the neurotologic patient:

- Outline the expected perioperative course for all neurotologic cases
- Recognize indicators of postoperative complications such as:
 - mental status change

- headache
- poor eye closure
- Manage postoperative complications including:
 - CSF leak
 - Meningitis
 - wound infection
 - facial weakness with special attention to eye care
 - hematoma
 - pseudomeningocele

Neurotologic diseases and pertinent anatomy:

Further understanding is developed through reading medical journals, textbooks and work in the temporal bone lab. Otology/neurotology journal club will be held on a regular basis (see conference schedule). Current and classic articles will be discussed. Fellows are expected to participate in article selection and lead discussions with the residents.

Objectives:

Year 1 Objectives: Fellows are expected to use the temporal bone lab on an ongoing basis and will be given lab assignments which will be signed off on by faculty. When a task is mastered, the fellows will be assigned more advanced techniques.

- Demonstrate mastery of a simple mastoidectomy (PC)
- Perform a facial recess approach (PC)
- Perform a canal wall down dissection (PC).
- Perform a labyrinthectomy and translabyrinthine approach to the IAC (PC).
- Perform infratemporal fossa dissection, middle fossa and suboccipital approaches will be progressively learned (PC).

Year 2 Objectives: Fellows will participate in a supervised advanced temporal bone dissection. This dissection will emphasize infratemporal fossa approaches for glomus tumors and lateral skull base tumors.

- Demonstrate the ability to appropriately expose the internal carotid artery (PC).
- Perform management techniques of the internal carotid artery (PC).
- Demonstrate proficiency in the Translabyrinthine, middle fossa and suboccipital approaches to the internal auditory canal and posterior fossa (PC, MK)
- Effectively teach anatomy as instructors in the class offered to residents, neurosurgeons and audiologists during the year (PBLI, MK, Prof).

Research Rotation

The research time is protected depending on the project requirements. One day of every week will be allocated to research. Flexibility in devoting time to research is important on both the scientific side and clinical side. At the start of the fellowship, fellows will be discussing projects with staff and this

might not require a full day. Later, it might be necessary to allow for several half day lab experiences if the projects require that. If the Otolaryngology/Neurotology fellow becomes interested and involved in a more extensive research project, more time can be protected and allocated under the authorization of the Program Director and Departmental Chairman. This might include the training grant or other grants that might be available. Fellows may also be interested in the PhD offered by the department of otolaryngology. The graduate school's requirements could add a considerable amount of time to the fellowship. The various otology research laboratories are always available and the fellow may call on the expertise of the laboratory personnel and facilities to complete basic science projects and for mentoring. There are constant ongoing clinical (prospective and retrospective) research projects especially in the cochlear implant, basic auditory and vestibular physiology areas. All projects will be supervised by a member of the faculty.

The fellow will formulate research proposals for approval by the Research Committee as required by the department and medical school. Institutional Review Board or the University and Laboratory Animal Medicine committee rules must be followed and appropriate approvals sought and obtained prior to initiation of research. The goals and objectives of the research rotation are as follows:

- Gain the scientific knowledge base and laboratory skills needed to prepare for and complete the research project (MK, PBLI).
- Perform a clinical or basic science research project of scientific significance, which contributes meaningfully to the advancement of the fund of knowledge in otology- neurotology (PBLI).
- Prepare a manuscript with research collaborators and pursue publication in a suitable peer-reviewed subspecialty journal (MK, PBLI, CS).
- Present at least one major meeting per year (MK, PBLI, CS)
- Understand basic principles of epidemiology, statistics and data evaluations and organization (MK, PBLI).
- Prepare a grant proposal to an extramural funding source (PBLI, CS, MK).

Interactions with Other Related Disciplines

The fellow will participate in an educational program during the two years to include elective time in those disciplines that overlap meaningfully with neurotology. This elective time will absolutely include several days spent participating at the vestibular rehabilitation unit, several days with audiology observing and participating in testing procedures, attending neurology conferences that overlap with otology-neurotology and several days in neuropathology and surgical pathology. The fellow is also expected to spend some time in the Cochlear Implant Center observing cochlear implant and auditory brainstem implant patient intake evaluations, programming visits, and counseling. This is not meant to exclude the freedom to potentially pursue other elective rotations with special relevance to clinical or research interests that will be pursued during the fellow's future academic career.

Neurosurgery: Fellows are to attend CFSB clinic for formal interaction with the skull base teams.

- Develop expertise in the neurologic evaluation (PC, MK).
- Understand clinical presentations, radiographic features, and surgical implications of diseases affecting the cerebellum and brainstem (PC, MK).
- Understand techniques for scalp and skull opening and closure (PC).

- Understand neurosurgical approaches to handling brain tissue, with special emphasis on the cerebellum and brainstem (PC, MK).
- Understand aftercare following neurosurgical procedures, including the indications for neuropharmacologic management such as the use of corticosteroids, hormonal replacement, antiemetics, fluid management, and anticonvulsant therapy (PC).
- Demonstrate ability to recognize CSF leak, subarachnoid hemorrhage, intraparenchymal hemorrhage, subdural hematoma, epidural hematoma, thromboembolic stroke, and brainstem infarction (PC, MK).
- Understand dynamics of CSF production and reabsorption, including their implications for preventing or managing spinal fluid leaks (MK, PC).
- Understand the management of lumbar drains and the surgical repair of spontaneous or postoperative spinal fluid leaks related to the temporal bone (PC).

Neuroradiology: While this is not a specific rotation however the fellow is expected to spend significant time reviewing films with the Neuro-radiologist as well attend the weekly Cancer/Head and Neck conference if cases of malignant skull base tumors are presented.

- Advance knowledge and understanding of disorders affecting the temporal bone, skull base, brain and brainstem from a neuroradiographic imaging perspective (MK, PC).
- Demonstrate advanced knowledge of neuro-anatomic structures and their function (MK, PC).
- Demonstrate special expertise in the interpretation of CT and MRI as they intersect the subspecialty of otology-neurotology (PC, MK).
- Recognize the potential contributions of imaging modalities such as SPECT, PET and Functional MRI to the diagnosis of neurotologic disorders (PC, MK).

Neurology/Gait Disorders: Fellows will interact with neurology at the Balance center and during the research months.

- Demonstrate additional expertise in the neurologic evaluation (PC).
- Improve understanding of migraine management, with particular emphasis on vestibular manifestations of migraine (MK, PC).
- Understand presentation, diagnosis, and management of movement and gait disorders, including pertinent findings in the vestibular testing environment (PC, MK)
- Understand and perform appropriate evaluation and management of neurologic conditions that may present with otologic symptoms (PC, MK)

Neuro-ophthalmology

- Demonstrate a thorough understanding of the diagnosis of eye movement disorders (PC, MK).
- Understand diagnostic techniques utilized by the neuro-ophthalmologist in evaluating patients with eye movement disorders, particularly those that might present with a complaint of dizziness or unsteadiness (PC).
- Demonstrate the ability to clinically document oscillopsia (PC, CS).
- Demonstrate an understanding and the ability to manage ophthalmologic issues related to

facial paralysis (PC, MK).

- Review pre and post operative neuro-ophthalmologic consultations on Neurotology patients (SBP, Prof, PC).

PM&R/Vestibular Rehabilitation:

- Understand the role of the physical therapist in evaluating, treating, and counseling the acute and chronic patient with vestibular symptoms or balance disturbance (PC, SBP).
- Understand the systems approach to evaluating the unstable patient (PC, MK).
- Learn to delineate which semicircular canal is affected by benign positional vertigo, and to perform the appropriate particle-repositioning maneuver for each canal (PC, MK).
- Understand appropriate exercise therapies for treating chronic disequilibrium from aging and/or uncompensated vestibular lesions (PC, SBP, MK).
- Understand the role of multidisciplinary management in treating the patient with multiple cranial neuropathies (SBP, CS).

Pathology:

- The fellow is expected to routinely review the surgical specimens with the neuro- pathologists and otolaryngologic-pathologists. Pathology slide presentations will be a part of every Wednesday conference where cases are presented.
- Demonstrate knowledge of the pathological basis of disease processes related to the ear and temporal bone (PC, MK)

Audiology:

The department of otolaryngology has a regular didactic series on the subject of audiology and vestibular physiology. It is taught by the faculty of the university and by guest lecturers. It is a didactic series and this is followed by a practicum with the clinic staff. This lecture series is offered on Monday evening for approximately two hours per session. This covers most textbook issues including air and bone thresholds, masking, tympanometry, word recognition testing, EcoG, ABR, Evoked emissions and covers the interpretation of these tests. The vestibular sections cover classic ENG, VEMP, Rotary chair testing, and Platform testing.

Other Responsibilities and Expectations

The fellow will keep a surgical case log. This will be reviewed with the program director at the quarterly intervals. Deficiencies will be identified and corrected by altering case coverage assignments. Every effort will be made to maximize exposure to lateral skull base procedures by altering case coverage assignments at the three institutions.

- The teaching responsibilities include:
- Coverage of the University Otology/Neurotology Clinic with the Otolaryngology residents.
- Coverage of Hospital consultations related to Otology/Neurotology, (i.e., reviewing the consultations with the housestaff and attendings)
- Daily rounds at the hospital where Otology/Neurotology patients are located and communicating with and teaching the residents.

- Organizing scheduled Otology-Neurotology Journal Club

CONFERENCES

New residents/fellows are required to attend University of Minnesota Medical School Resident/Fellow Orientation.

Neurotology fellows are expected to help organize the Otology Conference and to help ensure that it covers the field of otology over the two year fellowship. Residents will be guided to present talks that summarize the state of knowledge and give an overview of that knowledge. Neurotology fellows are also required to participate in Otology Journal Club, as well as in Morbidity and Mortality Conferences. The Neurotology fellow also participates in teaching the Temporal Bone Dissection course. There is a quarterly neurology, neurosurgery and neurotology education conference and the fellow is expected to participate in selecting topics, cases, and leading discussion.

EVALUATION

Please see also the Graduate Medical Education Institution Policy Manual, available online at: <http://z.umn.edu/gmeim> and the [Department of Otolaryngology Program Policy and Procedure Manual](#)

Quarterly Performance Review

The Program Director and select faculty conduct a face to face performance review with each fellow on a quarterly basis. A written summary of each meeting is maintained in the permanent record of the fellow.

Fellow Portfolio

Fellows are encouraged to maintain a portfolio to serve as an archive of educational and research activities. Portfolios include such documents as:

- Curriculum vitae
- Up-to-date operative experience report from ACGME web site
- Handouts prepared for conference presentations/patient presentations
- Documentation of quality assurance activities
- Research proposals and progress reports
- Reprints of published scholarly work, including clinical studies, scientific articles, clinical reviews, editorials, or letters to the editor
- Unpublished manuscripts of clinical studies, scientific articles, or clinical reviews
- Evaluations of oral presentations
- Documentation of coding meetings
- Teaching experience
- Administrative experience, including participation in department/medical school/hospital committees

The following information is from the ACGME/ABMS Joint Initiative Toolbox of Assessment Methods, Version 1.1, September 2000, Page 11:

Description - A portfolio is a collection of products prepared by the fellow that provides evidence of learning and achievement related to a learning plan. A portfolio typically contains written documents but can include video- or audio-recordings, photographs, and other forms of information. Reflecting upon what has been learned is an important part of constructing a portfolio. In addition to products of learning, the portfolio can include statements about what has been learned, its application, remaining learning needs, and how they can be met. In graduate medical education, a portfolio might include a log of clinical procedures performed; a summary of the research literature reviewed when selecting a treatment option; a quality improvement project plan and report of the results; ethical dilemmas faced and how they were handled; a computer program that tracks patient care outcomes; or a recording or transcript of counseling provided to patients.

Suggested Reference – Challis M. Amee medical education guide no. 11 (revised): Portfolio- based learning and assessment in medical education. Med Teach. 1991; 21:370-86.

Components/Principles of the Review

Review will consider progress toward the goals and objectives of the program, and will include:

- Clinical and surgical performance and progress: Faculty submit written evaluations of each clinical rotation using online evaluation system
- Research progress
- Administrative skill and experience Teaching skill and experience Publication progress
- Mock Oral Exam scores Attitude
- Punctuality
- Conference attendance, participation and presentation

The faculty assume a resident's/fellow's performance will mature as the resident gains greater education and experience. Therefore, expectations for the fourth-quarter fellow are different from those for the first-quarter fellow.

Possible Outcomes

Positive outcomes of the Resident/Fellow Review include:

- Affirmation of good clinical progress
- Advancement to the next year of training Recommendation for graduation from the program
- Information becomes part of the residents'/fellows' permanent file

Negative outcomes of the Resident Review include:

- A reprimand related to concern about performance
- Meetings at six-week intervals to evaluate improved performance until the next scheduled evaluation

- Probation for a period of six months to allow performance to improve Expulsion, conducted according to the University of MN appeals process Information becomes part of the residents'/fellows' permanent file

PROGRAM AND DEPARTMENT INFORMATION AND CONTACTS

The Department of Otolaryngology mailing address is:

University of Minnesota Medical School
Otolaryngology, MMC 396
420 Delaware Street SE
Minneapolis, MN 55455

<https://med.umn.edu/ent/education/fellowships/neurotology-fellowship>

DEPARTMENT CHAIR AND PROGRAM DIRECTOR

Department of Otolaryngology			
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Neurotology Fellowship			
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SAMPLE EVALUATION FORM

Otolaryngology-Head and Neck Surgery Resident – Short Evaluation Form

Resident's Name _____ Rotation Period ____/____/____ to ____/____/____ Year of Training _____

I. Patient Care

	Below Expected Exceeds Expectations Level Expectations									
A. Clinical Skills Incomplete, inaccurate medical interviews; poor exam skills & differential diagnoses; inefficient or disorganized evaluation plans; analysis of data & problem solving deficient; ineffective counseling of patients & families.	1	2	3	4	5	6	7	NA	Accurate, comprehensive & efficient medical interviews with subsequent exams & formulations of differential diagnoses & evaluation plans; data analysis & problem solving superb; excellent counseling of families.	
B. Surgical Skills Poor pre-operative preparations & decision- making re. intended interventions; technically inadequate surgical skills; inefficient progression of operations; inadequate or inappropriate post-operative care & recognition of problems or their solutions.	1	2	3	4	5	6	7	NA	Excellent pre-operative decision-making and preparations, superb surgical skills with efficient & safe progression of operations; personal & appropriate post-operative care with recognition of problems & prompt, efficient treatments.	

Comments: _____

II. Medical Knowledge

	Below Expected Exceeds Expectations Level									
Lacks knowledge of general medical & / or current specialty literature, fails to investigate pertinent topics re. clinical assignments, & inadequate preparation for presentations; does not demonstrate analytical thinking or understand complex disease relationships.	1	2	3	4	5	6	7	NA	Exceptional knowledge of general & current specialty literature; fully prepared for clinical assignments & presentations; analyzes patient in eclectic fashion with understanding of complex disease relationships.	

Comments _____

III. Professionalism

	Below Exceeds Expectations	Expected Expectations	Level	
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Lacks compassion, integrity & / or honesty; disregards advice & fails to acknowledge errors; satisfied with mediocre performance; is tardy; does not fulfill clinical responsibilities; unreliable; does not demonstrate respect for patients / families, or sensitivity to cultural / age / gender / religious differences.	1 2 3 4 5 6 7 NA	Demonstrates compassion, integrity & ethical behavior at all times; frequently self-evaluates & readily acknowledges errors; exhibits high performance standards & excels in clinical responsibilities; highly reliable & punctual; respects patients / families & is sensitive to cultural / age / gender / religious differences.
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Comments: _____

IV. Practice-Based Learning and Improvement

	Below Expected Exceeds Expectations Level										
Fails to utilize information technology to enhance patient care; never analyzes effectiveness of own practices or feedback on such from others; does not engage in self-improvement; deficient teaching of students, peers & other healthcare personnel.	1	2	3	4	5	6	7	NA		Habitually applies information technology in patient care; regularly analyzes results of own practices & input from others to achieve continuous improvement; enthusiastically teaches students, peers & other healthcare personnel.	

Comments: _____

V. Interpersonal and Communication Skills

	Below Expectations			Expected Level		Exceeds Expectations			
Does not establish minimally therapeutic relationships with patients / families; poor listening, narrative & non-verbal skills; documents on-going medical care inadequately; interacts poorly with staff & peers.	1	2	3	4	5	6	7	NA	Demonstrates rapport with patients / families; excellent verbal & non-verbal communication skills; full documentation of on-going medical care; superb, supportive relationship with staff & peers.

Comments: _____

VI. Systems -Based Practice

	Below Expected Exceeds Expectations Level Expectations									
Inefficient & cost-ineffective patient care; fails to recognize & / or appropriately utilize resources within health care system towards patient care; not an advocate for patients; tardy & / or incomplete post-care paperwork such as discharge summaries & operative notes.	1	2	3	4	5	6	7	NA	Consistently delivers efficient & cost-effective care; mobilizes all appropriate resources of health care system towards patient care; industrious patient advocate; prompt, accurate post-care paperwork trail including discharge summaries & operative reports.	

Comments: _____

Final Comments/Summation:

Signature of Evaluator: _____

Date: / /

Signature of Resident: _____

Date: /

EXAMPLE OF GRADING CHART:

Skill/Competency/Objective	Year 1				Year 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
A. Diagnostic & Assessment Procedures: Understand the indications, limitations, and normal pathological findings of								
Vestibular function testing including video vestibular oculography, vestibular ocular reflex, rotational chair, platform posturography, head shake test, visual acuity								
Facial nerve testing (e.g., electroneurography, electromyography).								
Physical exam (e.g., cranial nerve, cerebellar, sensory, motor, posture, gait, VOR, oculomotor, electrophysiologic testing).								
Imaging studies (e.g., computed tomography, magnetic resonance imaging with and without contrast, magnetic resonance angiography, nuclear medicine, angiography, interventional radiology, carotid artery balloon occlusion testing with SPECT scanning, PET scanning of the temporal bone, skull base and intracranial anatomy).								
B. Diseases, Disorders and Conditions: Understand the etiology, diagnostic criteria, historical features, differential diagnosis, prognosis, medical/surgical management, common and unusual complications, and impact on all spheres of functioning:								
Congenital (e.g., inner ear disorders, skull base tumors such as teratoma, congenital cholesteatoma (epidermoid) of petrous bone and skull base).								
Genetic (e.g., neurofibromatosis type 2, familial paraganglioma, familial meningioma).								
Infectious (e.g., Bell's Palsy, petrositis, osteomyelitis or osteitis of skull base, neurosyphilis).								
Idiopathic (e.g., spontaneous CSF leak into temporal bone).								
Inflammatory (e.g., cholesterol granuloma of petrous apex).								
Skill/Competency/Objective	Year 1				Year 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Neurologic disorders (e.g., multiple sclerosis, cerebral vascular accident syndromes, seizure disorders, migraines).								
Neoplastic (e.g., squamous cell carcinoma of skull base, adenoid cystic carcinoma involving the temporal bone, acoustic neuroma, meningioma, glomus tumor of skull base,								
Trauma (e.g., temporal bone trauma involving facial paralysis, CSF fistula, and/or encephalocele, arteriovenous malformation)	B	B	D	D	P	P	P	P
Iatrogenic (e.g., facial nerve paralysis, labyrinthine fistula).	B	B	D	D	P	P	P	P
Metabolic (e.g. DI (Diabetes Incipitus), SIADH (Syndrome of Inappropriate Diuretic Hormone).	B	B	D	D	P	P	P	P
C. Surgical Concepts								P
Anesthesia (e.g., neuroanesthesia, phenobarbital coma, hypocarbia, diuresis).	B	D	D	D	P	P	P	P
Intraoperative monitoring (e.g., cranial nerves VII, VIII {BSE, EAP}, IX, X, XI, XII).	B	B	D	D	P	P	P	P
Perform cerebrospinal fluid management (e.g., intraoperative and postoperative lumbar drains).	B	B	B	D	D	P	P	P
Construct flaps (e.g., regional muscle flaps, myocutaneous, free tissue transfer).	B	B	B	D	D	D	P	P
Perform management of complications (e.g., cerebrospinal fluid leak, dural repair, subdural hematoma, epidural hematoma, intracranial hemorrhage, hydrocephalus, stroke, intraoperative or postoperative seizure, hearing loss, dysequilibrium, oscillopsia, headache, cranial nerve paralysis, meningitis, diplopia, vertigo, steroid psychosis).	B	B	B	D	D	P	P	P
Basic techniques (e.g., harvest of nerve graft from neck or sural nerve, intracranial and intratemporal neural anastomoses, decompression of cranial nerve, ultrasonic aspiration, focused radiation therapy).	B	B	D	D	P	P	P	P
Postoperative care (e.g., neurointensive care, neuronursing care, DI (Diabetes Incipitus).	B	B	D	D	P	P	P	P
SIADH (Syndrome of Inappropriate Diuretic Hormone).	B	B	D	D	P	P	P	P
Multidisciplinary planning (e.g., neuroradiology, interventional radiology, neuroanesthesiology, neurology, neurosurgery).	B	B	D	D	P	P	P	P

Stereotactic radiosurgery for skull base neoplasms.	B	B	D	D	P	P	P	P
D. Indications, contraindications, risks/benefits, and complications of:								
Middle cranial fossa approach (e.g., facial nerve decompression, vestibular nerve section, acoustic tumor excision, repair of spontaneous, traumatic, or iatrogenic CSF leak and/or encephalocele, drainage of petrous apex abscess, vestibular neurectomy, repair superior semicircular canal dehiscence).	B	B	B	D	D	D	D	P
Excision of petrous apex tumor	B	B	B	D	D	D	D	P
Transcochlear approach (e.g., acoustic tumor excision, other cranial nerve tumors, drainage of petrous apex abscess, drainage of cholesterol granuloma, meningioma).	B	B	B	D	D	D	D	P
Retrosigmoid/suboccipital approach (e.g., acoustic tumor and other CPA lesions, vestibular nerve section, vascular decompress V, VII, VIII, meningioma).	B	B	B	D	D	D	D	P
Infratemporal fossa approach (e.g., glomus jugulare, neuroma IX, X, XI, XII, meningioma).	B	B	B	D	D	D	D	P
Lateral skull base approach (e.g., clivus chordoma, petroclival meningioma, parasellar tumors, neuroma cranial nerve V, cavernous sinus lesions, chondrosarcoma).	B	B	B	D	D	D	D	P
Cochlear implant/brainstem auditory implant.	B	B	D	P	P	P	P	P
Total and lateral temporal bone resection.	B	B	B	D	D	D	D	P
Labyrinthectomy.	B	B	D	D	D	P	P	P
Endolymphatic sac surgery.	B	B	D	P	P	P	P	P
Subtotal petrosectomy	B	B	B	D	D	D	D	P
Posterior lateral craniotomy	B	B	B	D	D	D	D	P

