

Association of Women Surgeons: Career Development Resources

Career development resource for otolaryngology-head and neck surgery

Kimberly A. Donnellan, M.D.^{a,*}, Karen T. Pitman, M.D.^b

^aIMC Otolaryngology-Facial Plastic and Reconstructive Surgery, 3401 Medical Park Drive, Building 1, Suite 103, Mobile, AL 36693, USA; ^bBanner MD Anderson Cancer Center, Gilbert, AZ, USA

KEYWORDS:

Otolaryngology;
Head and neck surgery;
Otology;
Rhinology;
Laryngology;
Facial plastic surgery

Abstract Otolaryngology-head and neck surgery, more commonly known as ear, nose, and throat surgery, is more than ear tubes and children's tonsils. It is an exciting and diverse surgical subspecialty that focuses on every kind of disorder of the head and neck. Otolaryngologists treat patients from infancy to geriatrics, delivering both medical and surgical care. There are also multiple opportunities to subspecialize after residency training. The information in this career development resource provides an understanding of otolaryngology and its subspecialty areas and training requirements.

© 2013 Elsevier Inc. All rights reserved.

The American Academy of Ophthalmology and Otolaryngology was formed in 1896, making it the second oldest member of the American Board of Medical Specialties. Because of the vast expansion of medical knowledge, the ophthalmology board split from otolaryngology in 1979. Currently, the American Academy of Otolaryngology-Head and Neck Surgery Foundation represents more than 12,000 physicians. Otolaryngologists specialize in both medical and surgical treatment of patients with disorders of the head and neck. The field is a unique blend of diverse head and neck problems, including allergy, rhinology (disorders of the nose and sinuses), pediatrics, otology (disorders of the hearing and balance organs), neurotology, laryngology, head and neck oncology, facial plastic and reconstructive surgery, and sleep medicine and surgery. All age groups, from infancy to geriatrics, are cared for by otolaryngologists. Although the majority of residency-trained individuals choose to practice general otolaryngology in a private

practice setting, others choose to subspecialize in 1 of several areas after residency. Fellowship-trained otolaryngologists often practice in academic settings and tertiary referral medical centers. The field of allergy and rhinology encompasses the treatment of environmental allergies, sinusitis, and anterior skull base disorders. Sleep medicine is 1 of the newer subspecialties and focuses on a team approach to patients with sleep disorders, who may require surgery through either traditional or robotic means. Laryngology focuses on the treatment of voice and laryngeal diseases and also encompasses upper esophageal and swallowing disorders. Specialized pediatric otolaryngologists focuses on cleft lip and palate, vascular malformations, and airway abnormalities. Head and neck oncologic surgeons treat patients with malignancies of the upper aerodigestive tract. Their training may include training in microvascular reconstruction and robotic and/or endocrine surgery. Facial plastics training can be a combination of cosmetic surgery, microvascular surgery, maxillofacial trauma, and reconstructive surgery. Otology is specialized training in diseases of hearing and the vestibular system, including the outer, middle, and inner ear; the temporal bone; and skull base surgery. These areas of expertise are included in most residency programs; they represent a vast

Edited by the Association of Women Surgeons CDR Task Force.

The authors declare no conflicts of interest.

* Corresponding author. Tel.: +1-251-665-8120; fax: +1-251-665-8140.

E-mail address: kimberly.donnellan@gmail.com

Manuscript received July 19, 2013; revised manuscript July 20, 2013

array of conditions and surgical procedures, and this variety is 1 of the reasons students are often attracted to otolaryngology as a specialty.

Advances in medicine and technology have made otolaryngology a highly technical field. Understanding of the molecular changes that cause head and neck cancers is beginning to unfold, leading to more targeted therapy. Cochlear implantation can restore functional hearing in deaf children and adults. After resection of the mandible for either a benign or malignant tumor, the jaw can be reconstructed with bone transferred from another site, such as the fibula or iliac crest; an anastomosis to vessels in the neck allows nearly 100% survival of bone, and dental implants can be put into the transferred bone to restore oral function. Large sinonasal tumors are often removed endoscopically via a transnasal approach under computed tomographic image guidance, avoiding facial incisions and open craniotomy. Pediatric otolaryngologists perform complex airway procedures on deformities of the newborn airway that were once fatal. These are just a few of the recent advances, and progress in the field will continue to ensure that otolaryngology will be an exciting and ever changing field in the future.

Medical students

There are numerous ways to gain exposure to otolaryngology during medical school. Not every medical school offers exposure to otolaryngology during the preclinical or clinical years. In fact, students may never be shown how to do a thorough head and neck examination by a specialist. If there is not an ear, nose, and throat rotation, students must seek opportunities with community otolaryngologists or away rotations to learn more about the specialty. When a school does offer a rotation or lectures, they are usually brief and superficial, taking a back seat to general surgery and internal medicine rotations.

Before the 3rd year, shadowing an ear, nose, and throat specialist at one's institution or in private practice will demonstrate what the day-to-day activities are like. A shadowing experience can usually be arranged by asking the physician directly. Most otolaryngologists like what they do and are eager share their enthusiasm for the specialty. When available, a 3rd-year clinical rotation is recommended. Once an interest in residency training is recognized, a faculty mentor is invaluable and will provide guidance to ensure a broad exposure to clinical and research options and with the residency application process. Usually, a student must take the initiative and contact a faculty member. Residents in otolaryngology are also willing to answer questions and share their experiences about residency training and the application process. Seek opportunities to participate in research projects or publication of an interesting case. Fourth-year rotations for students who will be applying to otolaryngology residency programs are of longer duration and more in depth and serve as an opportunity to learn what it is like to be an intern.

Otolaryngology residencies are very competitive. Applicants typically have very high grade point averages and United States Medical Licensing Examination step scores. Research experience, excellent faculty recommendations, publications, leadership positions, and a history of community and academic service often help distinguish applicants. Identifying one's interest in the early years, although not necessary, is helpful so that the student can tailor his or her educational experience accordingly.

Training requirements

Residency in otolaryngology consists of a minimum 5-year commitment of postgraduate education. Before 1996, residents completed 2 years of general surgery before beginning their otolaryngology training. Currently, the first year consists of a transitional year that includes various specialties, including general surgery, critical care, neurosurgery, emergency medicine, and otolaryngology. The remaining 4 or more years are dedicated to intense training in otolaryngology and often include dedicated research blocks. There are 103 residency programs accredited by the Accreditation Council for Graduate Medical Education, with 254 residency positions available to senior medical students. Before 2006, otolaryngology was part of the San Francisco early match process; however, it now participates in the National Resident Matching Program. Otolaryngology board certification by the American Board of Otolaryngology includes a written and oral board examination, which is generally taken the year after completion of residency. Recertification is required every 10 years by completing the American Board of Otolaryngology maintenance of certification process.

Fellowship training after the completion of an otolaryngology residency program consists of 1 to 2 years of additional training. Fellowship training programs are available in otology and neurotology, pediatric otolaryngology, sleep medicine, laryngology, rhinology, facial plastics, and head and neck surgical oncology. Several of the subspecialties also offer specialized board certification.

Research opportunities and grant funding

Medical students interested in otolaryngology may consider contacting faculty members within the otolaryngology departments at their institutions who are active in research. If research can be completed in a timely fashion, there are various national meetings at which one can present the research as an oral presentation or a poster. Two of these meetings to consider are the American Academy of Otolaryngology–Head and Neck Surgery Foundation annual meeting each September and the Combined Otolaryngology Spring Meetings. Residents and medical students attend both of these meetings and are welcomed.

Residents interested in research should also follow similar guidelines listed for medical students. The American

Academy of Otolaryngology–Head and Neck Surgery Foundation offers several grants for residents as well as travel grants to the annual meeting. There is also a grant available for residents interested in doing humanitarian work overseas. Some residency programs offer opportunities to participate in mission trips overseas.

Resources and membership in societies

1. American Academy of Facial Plastic and Reconstructive Surgery: <http://www.aafprs.org>.
2. American Academy of Otolaryngology–Head and Neck Surgery: <http://entnet.org>. This Web site has extensive educational and informational content that is available to nonmembers.
3. American Board of Otolaryngology: <http://aboto.org>.
4. American Broncho-Esophagological Association: <http://www.abea.net>.
5. American Head and Neck Society: <http://www.headandneckcancer.org>.
6. American Laryngological Association: <http://www.alahns.org>.
7. American Neurotology Society: <http://www.americanneurotologysociety.com>.
8. American Otological Society: <http://www.americanotologicalsociety.org>.
9. American Rhinologic Society: <http://www.american-rhinologic.org>.
10. American Society of Pediatric Otolaryngology: <http://www.aspo.us>.
11. Association for Research in Otolaryngology: <http://aro.org>.
12. Combined Otolaryngology Spring Meetings: <http://www.cosm.md>.
13. National Resident Matching Program: <http://nrmp.org>.
14. Triological Society: <http://www.triological.org>.
15. Voice Foundation: <http://www.voicefoundation.org>.
16. See also the Web sites that many otolaryngology training programs maintain and are usually associated with their respective medical schools.