Applying for Residency: Otolaryngology – Head and Neck Surgery

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Part I: Overview of Otolaryngology

Description of Specialty, Common conditions, types of patients
Otolaryngology-Head and Neck Surgery [OHNS] (also referred to as Otorhinolaryngology [ORL] and Ear, Nose, and Throat [ENT]) is arguably one of the most diverse and oldest surgical subspecialties. The word “oto-rhino-laryngology” comes from the Greek words – “oto” (ear), “rhino” (nose) and “laryn” (throat). Otolaryngology has expanded its area of expertise to a regional specialty of the head and neck and includes subspecialization in otology, neurotology, rhinology, laryngology, plastic surgery of the head and neck, tumor and cancer surgery of the head and neck, sleep medicine, pediatric otolaryngology and allergic disorders of the upper respiratory system. Otolaryngologists will informally say they medically and surgically manage all diseases from the “plura to dura”. Otolaryngologists report satisfaction from long-term relationships with patients, the opportunity to be the “end of the line” specialist, and the challenge of providing a diversity of services from medical management care to surgery. There are a host of reasons why students choose a career in otolaryngology, including treating a diverse patient population, responsibility as a diagnostician and a surgeon, treating the fascinating and complex anatomy of the head and neck, and improving the quality of life of patients on a daily basis.

Career trajectories: academics, clinical, research, teaching, etc.
OHNS affords the ability to practice in a range of practice settings, from private practice to a quaternary care academic center. Research and teaching are readily available as the field is generally academically oriented.

Practice Models
Practice models for general otolaryngology include traditional private practice, group practice, employment through a Health Maintenance Organization (HMO), hospital or medical center employment, academic medicine, or the military.

Residency: Length, typical curriculum
A typical OHNS residency lasts five years. The first year combines six months of otolaryngology with additional rotations in critical care and a variety of other surgical fields. The remaining four years
typically including repeating rotations in head and neck cancer, laryngology, rhinology, facial plastics, facial trauma, pediatric otolaryngology, and otology. Additional training is provided in allergy and sleep medicine.

Programs will differ on specifics of didactic curriculum, but most offer one morning per week for formal teaching in the classroom setting. Research requirements also vary and typically are 3 or 6 months of dedicated research time. There are a handful of residency programs across the country which allow for an additional 1 or 2 years of dedicated research time during residency. These 6 or 7-year NIH T32 sponsored otolaryngology residency programs are typically oriented for those interested in a career in academia.

Most programs will provide rotations in more than one hospital, which allows for diverse training environments. Programs exist in community hospitals, county hospitals, subspecialty hospitals, academic medical centers, and the veteran affairs hospitals. Some programs sponsor global health electives and many programs recognize the importance of global surgery.

Fellowships offered after residency
Otology/Neurotology – 2 years (ACGME-accredited)
Pediatric Otolaryngology - 1 year (some programs are ACGME-accredited)
Laryngology – 1 year
Rhinology – 1 or 2 years
Facial plastics – 1 year
Sleep (surgical management) – 1 year
Head and Neck Oncology – 1 or 2 years
Endocrine – 1 year

Part II: Life as an Otolaryngologist

Demographics
Otolaryngology is one of the smallest fields in medicine, which provides for an incredibly rich opportunity to know colleagues across the country.

• Total number of otolaryngologists practicing in the U.S.: 12,609
• Fully practicing otolaryngologists: 10,800
• Training otolaryngologists: 2,087
• Otolaryngologists in metropolitan areas: 5,961 (61.8 percent)\(^2\)
• Women otolaryngologists: 15 percent
• Practicing in the same area where they completed medical school: 19.5 percent
• Remaining in the same area where they completed their residency: 25.9 percent
• Physician office practice: 53.8 percent
• Academic practice: 26.7 percent
Primary specializations:

- General otolaryngology: 52.8 percent
- Pediatric otolaryngology: 9.5 percent
- Head and neck cancer: 7.6 percent
- Rhinology: 7.5 percent
- Otolaryngology/neurotology: 10.5 percent
- Facial plastics: 3.9 percent
- Other: 8.2 percent

Earning Potential

According to a 2018 Medscape report, otolaryngology salary is ~$380,000.

Otolaryngologist compensation by geographic area:

Northeast: $493,000
Southeast: $419,000
North Central: $413,000
Mid-Atlantic: $406,000
Great Lakes: $397,000
South Central: $360,000
Southwest: $342,000
West: $324,000
Northwest: $308,000
Lifestyle
According to a 2018 Medscape report, most otolaryngologists work about 30-45 hours per week seeing patients and about 10-20 hours per week on administrative responsibilities.

Otolaryngologists are among the most satisfied physicians, finding what they do rewarding.
There is a wide variation in being on-call based on practice style.

**Academic Otolaryngology**

Academic medicine is a popular choice for otolaryngologists with 27% in an academic practice. Otolaryngology departments generally will have all specialty areas represented. Academic otolaryngologists may participate in research, teaching of medical students and residents, and provide clinical care to patients. Otolaryngologists participating in global health programs often are affiliated with an Academic Medical Center or Medical School.

**Part III: Applying in Otolaryngology**

**How Competitive is Otolaryngology?**

Otolaryngology is a competitive specialty. In 2018, there were 112 residency programs with 315 positions. The number of residency positions is among the lowest in the country following neurosurgery, radiation oncology, and plastic surgery. Last year, 333 applicants applied for a position. In 2019, there were likely >400 applicants. The number of positions has generally remained stable -- 295 in 2014 to 315 in 2018.

**Planning the post-clerkship and senior years**

Many otolaryngology programs would like to see some commitment to the field, typically through research. Once you have decided on a career in otolaryngology, you should meet with your academic
advisors and your surgery clerkship site director to plan your post-clerkship clinical experiences. Your surgery clerkship director will be able to suggest a specialty advisor in otolaryngology. Be prepared to discuss your strengths as a future applicant, and be open to discussing research and other opportunities to improve your standing as an applicant. Asking otolaryngology residents for faculty who routinely mentor medical students is helpful.

Clinical Rotations

Sub-Internships and Away Electives
You must complete an otolaryngology sub-internship at either Mass Eye and Ear (MEEI), BIDMC, or BWH. Most HMS students will do a sub-internship at MEEI. There are no rules regarding additional sub-I’s, however, many people will do away sub-I’s, especially if they have a particular interest in a specific program or geographic location. Following a sub-I in otolaryngology, it is common to ask for a letter of recommendation from a faculty member who is best able to evaluate your performance. Most students typically choose an away sub-I at a program where they may be interested in being a resident.

Other Recommended Electives
Common electives students choose in addition to otolaryngology rotations include intensive care unit, e.g. surgical ICU, neurosurgery, plastic surgery, neuroradiology, and emergency medicine. The advanced radiology elective at MGH can be tailored toward OHNS by contacting the course director in advance, allowing a focus on head and neck radiology at the MEEI reading room. For most students, additional electives are your last opportunity to study outside the field of otolaryngology. Choose electives which will benefit you in the long run and that you are interested in.

Research
As many students will decide on otolaryngology later during medical school, research experience does not need to be in otolaryngology. Quality of research is the most important factor. Research also does not need to be lab experience or clinical trials. Other forms of research such as medical education research, global, community or public health research all are excellent options. Participation in research should ideally be fueled by the personal interests of the student.

National Meetings
Take advantage of any opportunity to attend or present at a national meeting in otolaryngology. These meetings are an excellent opportunity to learn more about the field. In addition, meetings provide a networking opportunity and a chance to introduce yourself to program directors and others involved in residency selection committees. There are three meetings commonly attended by medical students: American Academy of Otolaryngology – Head and Neck Surgery (AAO-HNSF), Triological Society, and Combined Otolaryngology Spring Meetings (COSM). Abstract deadlines are typically in August, September, and January.

Other degrees
Other degrees are not mandatory, but applicants may take a year or more during medical school to pursue a degree, such as MPH, MBA, or PhD.

Part IV: Assessing your Competitiveness

What Criteria do Programs Consider?

Program Directors and selection committees take into account a host of factors, including:

- Core clerkship grades
- Otolaryngology Sub-I performance
- Step 1 and 2 scores
- Letters of Recommendation
- Research
- Extracurricular activities
- Personal Statements
- Diverse background and personal experiences

Otolaryngology programs are often looking for different qualities in applicants. Generally, most otolaryngology applicants have excellent grades and step scores. Every program is different and is looking for different applicant qualities. Other factors, such as research and strong letters of recommendations play a role in the decision-making process for some programs, especially large or highly selective academic programs.

Assessing your competitiveness will determine how many and what types of programs you should apply to. There is no uniform number of programs recommended. If your self-assessment indicates you are a less competitive candidate, you might consider applying for an away elective at one or more of your desired programs. A stellar performance, and a letter of recommendation from a faculty member may help your application. It is important to identify and meet with a faculty mentor (usually an elective course director) who can help you personally assess the strength of your application. The OHNS department at HMS is committed to working with students to help in this regard.

1. Grades

It is anticipated most, but not all, students applying in otolaryngology will have an Honors with Distinction during the otolaryngology sub-I. Besides the otolaryngology sub-I, grades in medicine and surgery are commonly reviewed and valued by otolaryngology residency programs. Poor grades diminish your competitiveness, but many programs (even highly competitive programs) use a holistic approach to evaluating candidates.
2. USMLE Step Scores
Many otolaryngology residency programs use Step scores, especially Step 1, as screening tool. Despite an excellent record, an applicant’s record may not be completely reviewed. Programs do not disclose if they screen applicants and it also does not necessarily occur in more selective programs. The Harvard Department of Otolaryngology does not screen applicants based on Step I score. For candidates who are less competitive, taking the Step 2 exam (and earning a high score) early enough for consideration in the initial review may boost your chances for an interview. Most programs do not require a Step 2 score at the time of application, but will review and assess this if available.

3. Letters of Recommendation
As otolaryngology is a small field, letters of recommendation are a critical part of the application process. Generally, you should have letters of recommendation from 3 to 4 individuals who know you well. Detailed and personalized recommendations are more important than an impersonal recommendation from a senior faculty member who does not know you well. If you take a year out for research or other reason, it is advisable to have a recommendation from a research mentor or supervisor (even if the research is not specific to Otolaryngology).

When choosing your writers, consider choosing:
● Sub-I course director at MEEI
● Faculty member who knows you well
● Research mentors
● Faculty with a national reputation in OHNS - this may be in research, clinical medicine, or education

While students can have recommendations from non-otolaryngologists, this is generally not advised unless specific circumstances, for example, a mentor who knows you based on a significant extracurricular or research experience. Ask for your letters as soon as you identify the faculty member you want as your letter-writer. Do not delay asking for a letter. Once a faculty member agrees, remember to reach out to them again in May or June to give the writer adequate time to review your record. Give your letter writers your CV and personal statement to review as soon as you have a draft completed (you may send a final version later). ERAS gives you the option to waive your right to review the LoR. Waive your right to review letters as there is no benefit to reviewing your letters. Program directors would be concerned about integrity and honesty, if an applicant did not waive this right.

Getting an Interview: Attributes Residency PD’s Consider in Granting Interviews
Most otolaryngology programs take a holistic approach to reviewing applications. However, most programs review Step 1 scores, clerkship grades, sub-I grades, letters of recommendation, and research experience. Other measures, such as extracurricular / volunteer experiences and personal statements are also reviewed. When programs are ranking applicants for the Match, the attributes most valued are interpersonal interactions and skills, such as interactions with faculty, staff and residents during the interview process. Feedback from current residents is also most commonly listed as contributing to a candidate’s ranking.
How many programs should you apply to?
The number of programs you should apply to depends on your competitiveness as a candidate, your geographic restrictions (if any), whether you are couples-matching, and other factors. One of the main predictors of the number of programs needed for a successful match is your Step 1 USMLE score. This should be discussed with the OHNS faculty mentor before the application process starts.

Those matching in otolaryngology had among the highest USMLE scores. Based on 2018 NRMP data, the average step I score of those who matched was 248. The average Step 2 score was 254. The mean number of abstracts, presentations, and publications was 10.4. The percentage of those who are AOA are 40.2%. Of those who matched, 4.6% had a PhD and 21.9% had another type of graduate degree. In terms of matching, there was a >90% chance of matching in 2018 with at least 10 interviews. With less than 5 interviews, there was a 50-70% chance of matching. Of those with a step I score of >240, there was a 90% chance of matching. Scores between 200 and 230 had a 50-80% chance of matching.

Historically, most HMS students interview at around 10-15 programs and typically apply to about 50. This should be discussed directly with the OHNS faculty mentor before the interview season starts. By ranking a program, you are agreeing to employment at that program. Once the match occurs, the contract cannot be broken. Failing to honor the match may result in legal ramifications and delay in training, such as suspension from re-applying. Consequently, do not rank a program you do not wish to attend. Rank the programs in your preferred order and trust the NRMP will give you your best match. Trying to “game the system” by figuring out which programs will rank you higher is not advisable, risky, and generally will only result in unexpected and poor outcomes. By the algorithm of the match, you want to rank programs in the order you want to attend.

Application Timeline/Things to Keep in Mind
- **PCE (2nd/3rd year depending on Pathways or HST):** Consider spending one week on the otolaryngology service during the surgery core clerkship. If considering an away rotation in ENT, start looking at applications for aways in December/January of PCE. Sign up for Steps 1 and 2, especially Step 2 CS (test sites/dates are filled long in advance)
- **From end of PCE until September of 4th year:**
  - Take Step 1 Boards if you haven’t completed it yet
  - Complete home subinternship in otolaryngology (usually done at MEEI) as well as any away electives
  - Obtain 3-4 Letters of Recommendation
  - Complete required HMS Medicine or Pediatrics subinternship
  - Take Step 2 boards (you’ll want to be done with Step 2 CS and CK by November at the latest, preferably done earlier)
- **September of 4th year:** Complete and submit ERAS by 9/15 (the date that residency programs are given access to everyone’s applications).
  - Await and respond to interview invitations!***
- **October-February of 4th year**: Otolaryngology interview dates are highly variable and span this entire period. Interviews are heaviest from late October to early January, so don’t plan to be on heavy clinical rotations during the winter months.
- **Consult NRMP Match Calendar for Rank List Certification Deadlines**

A word about scheduling interviews: Because otolaryngology is a small field, many programs will only have 1 or 2 interview dates. Sometimes these dates are posted on the residency program websites by the end of the summer. It’s a good idea to check the websites and make a note of these dates, especially for programs that you are highly interested in, because there will inevitably be dates where multiple residency programs are all interviewing on the. When it comes time to respond to interview invitations, it is important to respond quickly because interview slots are often first-come-first serve, so it’s very helpful to know beforehand what dates you would be interested in selecting in the event that you are extended an interview offer.

Common questions you may be asked on the interview
Otolaryngology interviews typically last for one day and have an associated dinner before or after the interview. Make every effort to attend the residency interview dinners as this often gives valuable information about the program and the way residents interact in a social setting. Remember, you are interviewing the entire time you are at another department, including the dinner. Treat everyone, including administrators and wait staff at restaurants, with respect and professionalism. The dinner provides an excellent informal way of getting to know current residents and their daily lives. Feel free to ask questions about how they enjoy residency.

Interviews typically start early in the day ~7AM and consist of 1 medical student: 1 faculty member or 1 medical student: 2 faculty members. Interviews generally are 15-20 minutes. It is common to have 8-12 interviews per day depending on the program. Common questions include why otolaryngology, discuss a patient experience, tell me about yourself, tell me about your research, where do you see yourself in 5 or 10 years, tell me about a difficult situation and how you handled it, tell me about a time you were part of a team, and why would you like to attend this program. Review the websites of programs and offerings. Be prepared to discuss EVERYTHING listed in your ERAS portfolio. There is generally no need to bring any supporting documents to interviews, such as a CV. The materials have already been provided to faculty members.

Some programs incorporate skills assessment, such as making paper airplanes, carving soap, or suturing under a microscope into residency interviews, however, this is rare and usually for research purposes. The HMS OHNS department does not utilize these activities during interviews. These types of activities are more meant to see how you handle stressful situations, and are not intended to judge surgical technique.

Common interview faux pas include:
- Being late to the interview
- Poor preparation, such as not being familiar with the program
• Overly informal, inconsistent or inappropriate answers
• Abrasive, misogynistic, condescending, or evasive behavior
• Disinterest, bored, or flat affect
• Inappropriate humor
• Negative comments about the program, other programs, or co-applicants

Some programs will accept thank you notes; however, it is not necessary at most programs. It is very uncommon to have second look interviews for otolaryngology residency programs.

**Social Media**
Residency interviews are analogous to a job interview. Be cognizant of what is on your social media pages. It goes without saying to avoid posting anything which may come across as unprofessional.

**Communication with Programs: NRMP Code of Conduct for Applicants and Programs**
Both candidates and programs are governed in their behavior and communication by both state labor laws and NRMP policies. Programs are generally not allowed to ask a range of questions, including marital status, sexual orientation, other places you are interviewing, or how you will rank a program. Conversely, as the applicant, you may disclose whatever information you choose. For example, if you have particular desire to be in a city, such as being close to family or significant other, this is reasonable to disclose.

If you have one clear first choice program, discuss with your OHNS faculty advisor whether you should communicate that to the program director. **Absolutely do not tell a program you are ranking them first if in fact you are not planning to do so.** Program directors do talk to one another about applicants and you do not want a reputation for dishonesty.

**Advocating for Interviews**
If you do not get an interview offer with a desired program, but you are placed on a waiting list, you have several options- acceptance, advocating for yourself, or asking your advisor to advocate for you. We recommend discussing this with your OHNS faculty advisor, including a frank discussion of your reasons for wanting a particular program and your competitiveness at that program.