

Ophthalmology

Kian Eftekhari, MD and Paul J. Tapino, MD

Scheie Eye Institute, Perelman School of Medicine, University of Pennsylvania Medical School, Philadelphia, PA

Introduction

Ophthalmology is a primarily office-based surgical subspecialty that uses a wide variety of technologies and techniques to treat eye disease. Ophthalmologists have to be visual learners and rely on pattern recognition to diagnose and treat diseases of the cornea, lens, and retina. In addition, they utilize microsurgical techniques to remove cataracts or operate on the retina. The specialty demands the ability to think on your feet to treat eye problems on an everyday basis, but also demands an interest in performing procedures. Most patients are seen in an outpatient setting rather than in the hospital. The specialty is competitive due to the manageable hours compared to other surgical fields and reasonable salary. Matching in Ophthalmology generally demands a strong application with some research.

Ophthalmologists usually work in an academic setting or in private practice, often as part of an Ophthalmology multispecialty group rather than working for a hospital. Most comprehensive ophthalmologists see patients in clinic 3–4 days a week and operate 1–2 days per week. Comprehensive ophthalmologists perform mainly cataract surgery. Among the many subspecialties within Ophthalmology are Cornea, Glaucoma, Vitreo-retinal Surgery, Oculoplastic Surgery, Uveitis, Neuro-ophthalmology, Pediatric Ophthalmology, and Ophthalmic Pathology. A comprehensive ophthalmologist in an academic setting may see 30–40 patients per day, while in private practice an ophthalmologist might see upwards of 50 patients daily.

Job satisfaction among ophthalmologists is among the highest within medicine. Many people choose to do Ophthalmology because it affords the opportunity to develop long-term relationships with patients and treat medical conditions while also being a surgical subspecialty. Medical students not interested in doing procedures probably would not be a good fit for Ophthalmology, although some providers do not perform surgery on a routine basis.

Residency is 4 years long, including a Preliminary or Transitional Year. Many ophthalmology residents choose to do a Transitional Year, as it affords the ability to take care of medical and surgical patients. Ophthalmology residency has the advantage of being fairly structured and relatively uniform across different programs in the country. Typically, the first year of Ophthalmology residency (PGY-2) is focused on learning examination techniques, building a knowledge base, and gaining some exposure to the Operating Room. The second year of residency usually involves a heavier clinical load, more time doing surgery, and often the heaviest call schedule. At most programs, the third year of residency is mainly devoted to learning cataract surgery. The national residency review committee requires at least 86 cataract procedures as Primary Surgeon over the course of residency, although most programs exceed this number and generally average at least 155 cataract cases. However, while it may

be tempting to think that a higher volume of surgical cases indicates a better program, this depends on career plans after residency. Most Ophthalmology residents go on to complete a fellowship and in many cases this may mean one does not perform cataract surgery for the rest of your career. Therefore, if a medical student is interested in doing retina surgery, it may not be as meaningful to go to a program with high cataract surgery numbers if the retina department is not as strong. It is best to consider programs that are strong in a number of specialties and provide adequate surgical numbers across different fields, such as oculo-plastics, pediatrics, and retina.

Insider Tip: Many residency programs also have fellowship programs. While this is not necessarily bad, as fellows contribute to resident education, having a large number of fellows – especially cornea fellows who will want to perform cataract surgery – can have a negative impact on resident surgical volume.

Call responsibilities vary among programs, with the most intensive call generally during PGY-2. However, some programs (like ours) have more intensive call during PGY-3, when the resident has a much higher knowledge base and is more efficient. Very few Ophthalmology programs have in-house call. The majority of programs have home call, but depending on the number of hospitals or trauma centers they cover, there may be numerous consults in the middle of the night. As Ophthalmology is a specialty where general practitioners may not be able to do a majority of the clinical exam, it often is necessary to come into the hospital to see a consult just to make a diagnosis, even if it is not truly emergent.

Insider Tip: While call duties are one consideration when choosing a residency, Ophthalmology is generally a less intensive field than other surgical subspecialties, so that judging a program by its call schedule may be less important than other factors.

Programs vary in the facilities they offer residents, but one thing to look for is a Veterans Administration (VA) hospital at the program. While this is not a requirement to ensure you will meet the surgical numbers, in many cases VA hospitals are where residents perform a high volume of cataract surgery.

Insider Tip: The presence of a VA hospital in an Ophthalmology program usually is a good sign that the program has adequate clinical and surgical volume.

Preparation

Performing well during medical school, especially on the Medicine and Surgery clinical rotations, is the surest way to match into Ophthalmology. Many medical schools also have an Ophthalmology rotation and, while performing well is important, the evaluation you get may not be as important, as these rotations are in general more lenient than the core clerkships. Performance on an Ophthalmology rotation may be better reflected in the quality of a letter of recommendation (LoR) than on the clerkship grade.

Insider Tip: LoRs are very important in Ophthalmology. It is a small field, so that many people at different programs know each other personally. Having your personality and work ethic shine through on a LoR can be a key factor in getting an interview.

It is very common for medical students to discover an interest in Ophthalmology on elective rotations later in medical school. While it is most noteworthy to get involved in research activities at an early stage, pursuing other activities during medical school is also valuable. For example, participating in student groups and serving in a leadership position is important. Research is also important, especially if you are looking to match in an academic program. In many Ophthalmology programs, the clinical faculty who educate the residents are actually in private practice. Therefore, research may be less important in these settings. Nevertheless, demonstrating an interest in research can only help your application. Even if you do a project in another field before you developed an interest in Ophthalmology, this can at least indicate an interest in research.

If you are considering taking a year off to do research, there are Doris Duke and National Eye Institute fellowships at some academic medical centers that focus on Ophthalmology research. These typically occur between the third and fourth years of medical school. If you pursue one of these programs, be prepared to talk about it on interviews.

Many medical schools have an Ophthalmology rotation available to their students. If not, or if you would like to match in a specific area of the country, consider doing an away elective. We do not routinely encourage our medical students to do away electives, because they may do more harm than good for your application. If you have a strong application and are not focused on a specific geographic area where you would like to match, there is often no need to do an away elective. Your Medical Student Dean or Ophthalmology Student Coordinator may be able to take a look at your application and tell you whether it is competitive. If you do an away rotation, it can be high risk, high reward. If you are trying so hard to make a good impression that you appear too intense or over-eager, it could doom your application to that specific residency. We have had medical students who, while clearly very smart and hard-working, were just a little too aggressive and did not make the right impression. On the other hand, if you perform well and get to know a few faculty, it can certainly bolster your chances of matching into that program. Away electives are commonplace in Ophthalmology, but just be certain that

you understand the risks as well. If you do an away elective, make sure to try to obtain a letter of recommendation from a faculty member at that institution.

Another way to distinguish your application is to present a poster at the American Academy of Ophthalmology (AAO) or Association of University Professors in Ophthalmology (AUPO) meetings. The former is the main society meeting, while the latter attracts mainly Program Directors and Department Chairs, and is a good networking opportunity.

Applying

In 2013, there were 583 applicants for 460 Ophthalmology positions offered, all but five of which were filled (applicant match rate of 78%); 96% of the matched applicants were US graduates and 4% were foreign graduates. Between 2003 to 2013, the matched rate has slightly increased (from 67 to 78%) [1, 2].

United States Medical Licensing Examination® (USMLE®) Step 1 is often a factor that gives Program Directors a first cut of medical students whom they would like to interview. In 2013, the average USMLE Step 1 score for students who matched in ophthalmology was 239, while the number for students who did not match was 222. For the sake of comparison, 10 years previously these numbers were 228 and 208, respectively. While many programs accept medical students with lower scores, it will make it harder to get interviews unless your LoRs or another aspect of your application is outstanding. If you are not happy with your USMLE Step 1 score, consider taking Step 2 early enough so that it can be put on your application.

In Ophthalmology, LoRs are a key aspect of the application. Many well-known faculty around the country write letters for numerous medical students, but it is more important to get a quality letter from somebody who knows you well than a generic letter from a famous ophthalmologist. Program Directors around the country receive these generic letters all the time and if yours is not significantly better or more insightful than the other letters they have received from the same person, it may not carry much weight. If possible, you should obtain two letters from Ophthalmology faculty and one from a non-ophthalmologist or research mentor. In addition, you may want to obtain a fourth letter from any faculty member because some Preliminary programs may require it.

For Ophthalmology, the application process is coordinated by SF Match (San Francisco Matching Program; www.SFmatch.org), which is an entity with its own timeline that differs from that for Electronic Residency Application Service (ERAS®), which coordinates most other residency matches, including the one for your Preliminary Year. Therefore, you will have to

QUICK FACTS

- Rank:** Highly competitive
 - Average salary:** \$371 987
 - Residency years:** 4 years (including Preliminary)
 - Number of residency positions:** 460
 - Number of filled residency positions:** 455 (98.9%)
 - Number filled by US Seniors:** 411 (89.3%)
 - Number of applicants:** 583
 - Match rate:** 78%
 - Average number of applications:** 58
 - Average resident work hours:** 50–70 hours
 - Average attending work hours:** 40–60 hours
 - Resident call:** Program-dependent
- Data based upon [1, 2]*

...the Ophth...
 ...applications...
 ...before Labor Day...
 ...are September or ea...
 ...interview schedule is fast...
 ...each year. In general...
 ...clear if there are schedul...
 ...best thing you can do is f...
 ...on your mobile device. S...
 ...be prepared. Be courteo...
 ...than you speak; that pers...
 ...the final decisions.
 ...interview is a very importan...
 ...usually compile their rank...
 ...interview days. If you have...
 ...you are visiting, you c...
 ...you have a faculty mem...
 ...this for one program. C...
 ...Remember, interview...
 ...residents are casual do...
 ...after the interview, and...
 ...about the program and...
 ...field, so even if you do...
 ...pression, because you...
 ...in the future.

Insider Tip:
 Consider applying for...
 ...is the RBP Medica...
 ...Residency Grant Program

...nces
 ...2012) Medical Group...
 ...Association...
 ...available from...
 ...ology [accessed Sep...

apply to both, but the Ophthalmology application is due earlier. There is not a firm deadline for the SF Match applications, but in general you should try to submit your completed application with LoRs before Labor Day so that it is reviewed in the first batch. Interviews may occur as early as late September or early October, but most take place in November and December. The interview schedule is fast and furious, and many programs use the same weekends for interviews each year. In general, it is good to have a rough idea of your rank list before interviews so that if there are scheduling conflicts between programs, you know which one you would like to pick. Be prepared to respond quickly for available interview dates as these will fill up! The best thing you can do is have a calendar available and use an email address that you can check on your mobile device. Some programs even call you directly to invite you for an interview, so be prepared. Be courteous to the administrative assistant or program administrator with whom you speak; that person often plays an integral role in the process, though does not make the final decisions.

The interview is a very important factor in your future position on the rank list. Residency programs usually compile their rank list the same day as the interview and then collate the lists from all interview days. If you have a faculty member advocating for you who knows someone at a program you are visiting, you can try to have them call beforehand to put in a good word. However, if you have a faculty member call to tell a program you are ranking them highly, you can only do this for one program. On the interview day, be yourself, stay positive, and try to act professionally. Remember, interviewers are evaluating what kind of colleague you will make, so even if the residents are casual do not let down your guard too much. There often is a dinner before or after the interview, and these events offer a more casual setting for asking residents questions about the program and getting to know them better. Remember, Ophthalmology is a small field, so even if you do not anticipate ranking a program highly, always try to make a good impression, because you will likely run into your co-applicants and residents in that program in the future.

Extra Insider Tip:

- **Consider applying for research grants/fellowships.** One award specific to the field is the RBP Medical Student Fellowship supported by the Research to Prevent Blindness Grant Program.

References

1. AMGA (2012) *Medical Group Compensation and Financial Survey*. Alexandria, VA: American Medical Group Association.
2. SF Match; available from: <https://www.sfmach.org/SpecialtyInsideAll.aspx?id=68&tp=2&unit=> Ophthalmology [accessed September 2014].