Road to medical residency in the USA: An exciting and demanding journey

In our era, US are the cradle of medical research, and perhaps one of the best places for a doctor to train. Unsurprisingly, well qualified MD's from around the world take their best shot for a residency spot in the US. The present writing aims to provide a concise outline, as well as useful resources for medical students and doctors wanting to apply for a residency position in the US.

Summary of the process

On the contrary to many other countries, where a residency spot is obtained through direct communication with the various departments of a hospital, in the US this process is done electronically with a centralized process known as "the match". Briefly, what this entails is applicants uploading their application to the "electronic residency application system" (aka ERAS), programs download these applications and invite applicants for an interview. After their interviews applicants rank the programs, the programs rank the applicants, and the "matching" occurs based on each other's preferences. The process starts in June and ends in March of the following year.

In order for international medical graduates (IMGs) to be eligible to apply for the match they need to have graduated from an accredited medical school (see www.ecfmg.org for details) and to take the necessary exams (USMLEs) for the medical license in the US. For someone to be eligible to take the USMLEs, the first step is to go to www.ecfmg.org and start an application to take step 1, step 2 CK or step 2 CS. The system will generate some forms after the exam fee is paid and an examination eligibility period is selected, and then the medical school needs to verify the applicant's credentials. This is usually being done by a faculty member or a clerk at the secretariat of the school and sometimes it can take up to 4 months so plan in advance. After the credentials have been verified the applicant can pick a date within the selected eligibility period based on testing center availability. Examination for step one and step 2 CK is held at the various Prometric centers around the world (www.prometric.com). Step 2 CS exam is held at USMLE testing centers exclusively in the United States. No additional verification is needed by the medical school for future USMLE examinations, so these are easier to schedule.

After Step 1, Step 2 CK and Step 2 CS exams are completed then the applicant can purchase an ERAS token, which is usually available for purchase in mid June. With this token, he or she can register to the ERAS in order to start working on the residency application. The applications are released to programs early mid September (and MUST be available on the part of the applicant on day 1, given that many programs fill their interview spots very quickly)

so this gives the applicant around two months to gather the necessary documents (deans letter, recommendation letters, transcript of records etc -please see ecfmg.org for full list). In the following period, the interview invitations arrive via e-mail (please make sure to schedule the interviews promptly as the spots fill in quickly), applicants attend the interviews, and around late February both applicants and programs need to submit their ranking lists. To submit the rank order list, one must register to the National Residency Matching Program (NRMP) in addition to ERAS. Matching occurs usually in the 3rd week of March. On Monday of the week applicants learn if they matched, (for the ones who didn't scramble occurs between Tue-Thu through which unfilled positions can be filled by unmatched applicants) and on Friday they learn where they matched.

What matters for matching at a good program?

Everything! Exam scores, publications, clinical experience in the US, the applicant's medical school and class standing etc. It is difficult to rank these in absolute order of importance, since every program director weighs in things differently and it is usually the whole strength of the application that matters.

According to most program directors, the most important of the above is previous US hands on clinical experience. This can be obtained by arranging clinical electives, or sub-internships. This is only feasible while in medical school, so plan ahead. You can contact various medical schools using the contact information on their websites to arrange the elective. Usually there is tuition involved. Institutes like Harvard Medical School and Mayo Clinic offer such electives. Through the elective, the prospective applicant can get a letter of recommendation from a US attending which can boost the application. Moreover, the host institution gets to know the applicant and that might even help him in getting preference in the selection process for that particular institution. Since we mentioned letters of recommendation, these should ideally be from US faculty, or from faculty who are known in the US and are well regarded, even if they do not work there. Finally, observerships might not be that helpful.

Exam scores

Necessary for the residency application is the USMLE Step 1, Step 2 CK and Step 2 CS exams. The first two, are multiple choice question exams with a single best answer. Scores' range and mean change each year. For the more updated formation please visit **usmle.org**. In general, a score near the mean is ok, but preferably your score should be at least one standard deviation above the mean score US student to compete for a residency spot. Scores above 260 are great and can catch the eye of most program directors, but that being said, they are not enough to

grant you any interview or acceptance into any program. Bad scores usually close the door to many programs, but even this is not always the case, since it is the total strength of the application that matters. Bottom line, the higher the better, but keep in mind that you should not take a huge chunk of time only studying as explained below. Helpful tip for the exams: usmle.org has 3 blocks of official questions for each Step exam, including the official software which you can run on your own PC. It might be useful to familiarize yourself with the original software prior to taking the exam. Note: studying resources are intentionally left out from this text, since they change periodically and everyone has their own style of learning/studying. One helpful thing to know is (at least based on my personal experience) that the uworld qbank (NOT the self assessment) is very much like the actual exam in terms of difficulty.

One note on Step 3: Step 3 is necessary if you want to train on an H1b visa which does not require the trainee to go to their home country for a period of two years like the J-1 visa does. It is not the end of the world if you get trained in a j visa, as there are procedures through which you can waive the two year requirement. Law firms can be very useful when the time comes, preferably ask someone who went through the same process for recommendations. Step 3 score can be helpful if high, can be hurtful if low. Many people take it around January of match year when interviews are pretty much done so it does not affect their ranking. One thing to consider is that most programs require that residents take step 3 by the end of first year. First year is notorious in residency, so no matter how little time you have before residency, it will be even less during the first year, therefore it would be better to get it out of the way sooner rather than later. Finally, not all programs sponsor H1b visas, they usually mention on their website if they do or not.

Graduation cutoff date

Most programs, in order to review an application, require no more than 5 years to have passed since the applicant's graduation date -others no more than 3 years. That being said, it is really important not to have gaps in your CV. So, if you decide to study for the Steps after medical school, try to do some research at the same time or even get a clinical job. "Studying for the steps" is not an acceptable period in an applicant's CV according to program directors. US medical students take the exams while in medical school.

Publications/research

"The more the better" rule also applies here, especially for fellowship application. Regarding residency, research in the US could be the only way to get a US letter of recommendation. Ideally, research should result in publications to prove one's productivity. There is not a fixed number of years to do research, but preferably it should not get you past

the 3-5 year graduation date cut-off. One good thing about research is that it can lead through publications to a green card application (with the help of a lawyer). Green card can prove also helpful when applying for residency and fellowship.

One note on funding: Funding during research can be tricky. It depends mostly on the funding of the PI. Good sources for funding are foundations either from Greece (e.g. Stavros Niarhos Foundation) or Europe. Another source could be scientific societies such as American Heart Association. Please keep in mind that many of these require one to be a US Citizen or permanent resident, so make sure you read the eligibility requirements carefully before applying.

Interviews

The most important thing on interview say is to **show enthusiasm** about the program and medicine in general. Read about the program beforehand (many resources can be found online on program websites). Prepare questions and ask them. **You will be asked a lot by your interviewers if you have any questions.** A good interview can move you a few spots in the ranking list of a program; a bad interview can move you many spots lower. "Bad" here has the meaning of weird. **Finally, keep in mind that during an interview you are interviewing the program as well. You want to make sure to whatever possible extent that this is the right place to spend the next few years of your life.**

Final thought

To sum up, the above information represents an outline for medical students and doctors interested in pursuing training in the US. It is indented to serve as a starting point for someone who seeks an overview of the journey. It is in no way comprehensive. For more information please refer to the websites listed below. Finally, it cannot be emphasized enough that sky is the limit! Do not get discouraged by things you read or hear about IMGs. There are IMGs in top university programs so **ANYTHING IS POSSIBLE!**

Best of luck in your endeavors, Georgios A. Triantafyllou, MD

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Helpful websites:

www.ecfmg.org www.usmle.org www.uworld.com