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Medical Student Forum

THE OSTEOPATHIC APPLICANT

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Abstract—The number of osteopathic students choosing emergency medicine (EM) as a specialty is continuously increasing. However, EM remains a competitive specialty. Accordingly, in this article we guide osteopathic students interested in EM through the Comprehensive Osteopathic Medical Licensing Examination (COMLEX), the United States Medical Licensing Examination (USMLE), third- and fourth-year rotations, and the match process. Additionally, we provide tips on the process of applying to allopathic programs and we discuss the timeline of both the allopathic and osteopathic match. Finally, we discuss the effect of the Single Accreditation System and the Memorandum of Understanding, an agreement to merge the allopathic and osteopathic graduate medical education systems into a single graduate medical education accreditation system. This is expected to be completed as of July 1, 2020. Therefore, we elucidate the expectations for osteopathic applicants (particularly with regards to the USMLE and COMLEX examinations). © 2018 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

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INTRODUCTION

Each year an increasing number of osteopathic students enter into the field of emergency medicine (EM). From 2008 to 2009, there was a 34% increase in the number of

osteopathic students going into osteopathic EM programs for training, compared with only an 8% increase the previous year. This was, remarkably, one of the highest increases when compared with all specialties (1). However, when compared with 2017, the number of osteopathic EM programs participating in the Osteopathic Match decreased from 51 programs (offering 310 positions in total, 306 matched students) to 30 programs (offering 172 positions in total, 158 matched students), with the remaining osteopathic programs participating in the allopathic match (2,3). In allopathic EM programs, the number of osteopathic residents has increased sevenfold from 1985 to 2006, the highest increase in any specialty during that time span (4). These numbers continue to increase. In 2018, 558 osteopathic students/graduates applied to EM, 484 of which matched (almost 87%). This represents the highest number of osteopathic residents in Accreditation Council for Graduate Medical Education (ACGME) programs, with a 2.7-fold increase from 2014 (3).

DISCUSSION

When preparing for their graduate medical education training, osteopathic students make several complex decisions: whether or not to take United States Medical Licensing Examination (USMLE) examinations in addition to the Comprehensive Osteopathic Medical Licensing Examination (COMLEX) examinations, how

to schedule their EM rotations to optimize their chances of a successful match, and whether to participate in the osteopathic or allopathic match (or both).

THE COMPREHENSIVE OSTEOPATHIC MEDICAL LICENSING EXAMINATION (COMLEX) AND THE UNITED STATES MEDICAL LICENSING EXAMINATION (USMLE)

The COMLEX is required by the American Osteopathic Association for osteopathic students (Step I and II) to graduate. These examinations are also used during the interview and residency selection process. At osteopathic residency programs, the COMLEX scores are primarily used when reviewing a student's application. Although most allopathic programs will typically accept the COMLEX examinations, most prefer (and many will require) that osteopathic students take the USMLE in addition to COMLEX for a more direct comparison with their allopathic counterparts. A 2009 study showed that COMLEX scores could not reliably predict USMLE scores, and that the two tests were not interchangeable (5). As a result, it is recommended that osteopathic students take the USMLE if they are considering an allopathic residency. It is also important to specifically ask individual allopathic residency programs if they accept the COMLEX, or if they require the USMLE for their application process.

Each step of the COMLEX is unique in its purpose and type of knowledge tested. The Step I portion of both COMLEX and USMLE tests are usually taken at the end of the second year of medical school. If the osteopathic student is planning on taking both tests, he/she should ideally take the tests within 1 or 2 weeks of each other because most of the material studied will appear on both examinations. The major difference between these two tests is the Osteopathic Manipulation Medicine portion of the COMLEX test.

Step II of COMLEX—both the Cognitive Evaluation (CE) and Performance Evaluation (PE)—is required for all osteopathic students. The CE portion is a computer-based examination that focuses primarily on the integration of medical knowledge into the clinical setting (6). USMLE Step II Clinical Knowledge (CK) also focuses on these very same principles (7). Step II is usually taken during the beginning or middle of the fourth year, but it must be taken prior to graduation from medical school. If their Step I score is competitive (both for COMLEX and USMLE), some students elect to take the Step II after applying for residency or even after interview season has completed. However, if the student's Step I score is average or below average, then he/she should take Step II (COMLEX CE or USMLE CK) to try to improve the score prior to starting the application process for residency. Showing improvement from Step I to Step II scores can help increase

interview and match potential. Some allopathic program directors would recommend taking USMLE Steps I and II to improve the osteopathic student's competitiveness, but this is on a case-by-case basis. If the Step I score for COMLEX and USMLE are extremely competitive, one may elect not to take USMLE Step II CK. However, as stressed above, asking individual residency programs about their requirements is greatly recommended.

Last but not least, applicants should carefully consider that some program directors will not rank or even consider anyone who has not passed Step II and forwarded their score by the rank list deadline. Step II does not necessarily need to be completed prior to the actual interview. However, many program directors consider their program and the specialty of EM to have become so competitive, that strong scores on *both* Steps I and II are recommended to have a successful Match.

In regard to the USMLE Step II Clinical Skills (CS), it is *not* required for an osteopathic student to take this portion of the examination. A passing COMLEX PE score will be equal to passing the USMLE Step II CS. An osteopathic student must take the COMLEX PE examination to graduate, whereas an allopathic student must take the USMLE CS portion to meet their own requirements.

WHAT IS A "COMPETITIVE SCORE?"

Students should ask their medical school advisor or even a program director of a residency to better understand where their score stands on a competitive spectrum. Also, reviewing the Match data on the National Residency Match Program website from the past year is helpful as well to look at the average USMLE score for matching EM interns (4,8). Of course, it is only common sense to remember that the competitiveness of the score depends on how competitive and sought-after the program is.

THIRD- AND FOURTH-YEAR ROTATIONS

During the third year of medical school, many of the core rotations are predetermined (e.g., pediatrics, obstetrics/gynecology, medicine). During their third year, students should try to arrange an EM rotation if possible. This will help them decide early on if EM is the right fit for them. Typically, most programs allow only fourth-year students to rotate in the emergency department (ED), but some places will allow end-of-third-year students (i.e., May or June). Other elective rotations such as trauma surgery, intensive care unit, radiology, ophthalmology, orthopedics, and anesthesia are also very useful to the aspiring emergency physician. If elective rotations are not available during the third year, doing these rotations within the fourth year is a good plan as well.

Planning the fourth-year sub-internship (sub-I) in EM can be a daunting task, depending on how much guidance the student's medical school provides. Certain advisors may have more experience with osteopathic options but may have less knowledge about allopathic programs. The key is finding a mentor or advisor that will be able to assist the student with his/her specific needs.

Some schools will require one EM rotation at their home institution, however, additional outside EM rotations can be beneficial (increased exposure to potential residency programs, added experience in the ED, ability to network with residents and faculty at other institutions). Traditionally, schools allow one or two outside electives of the students' choice; therefore, ideally, students should schedule a rotation at an institution where they are considering a future residency.

When applying to the Osteopathic Match only, students should choose osteopathic programs for their sub-I. On the other hand, when applying solely to the Allopathic Match, or even in combination with the Osteopathic Match, scheduling a rotation at an allopathic institution is recommended. Rotating at an EM residency program will give students the opportunity to obtain a Standard Letter of Evaluation (SLOE), which is required during the application process (9). Most programs require the applicant to have two SLOEs as part of the application, and some may be requiring two before an application will be considered complete. SLOEs can be completed only by EM faculty and are typically completed by the clerkship director, though this varies from program to program. Students should obtain at least one, and preferably two SLOEs.

Once the students determine the path they are going to pursue (osteopathic, allopathic, or both), they should research residency programs and begin the application process for a sub-I. This usually occurs in the spring and early summer of the third year. Each program will usually have a website that explains the medical student application process, as well as deadlines for applications. If possible, students should plan their sub-I rotation between August and December of their fourth year. This will give them the opportunity to make an impression prior to the rank list deadline. The application process can be tedious and costly, depending on where the student applies. Some programs require application or rotation fees, and most programs will not provide housing or travel costs. Students should be prepared to e-mail transcripts, board scores, and information from their medical school, as most programs will require this information prior to rotating with them.

Students who are unable to schedule a sub-I in the ED should try to schedule one of their other rotations (i.e., trauma surgery, general surgery, pediatric emergency medicine, intensive care unit, ultrasound) at one of their

top residency choices. These might provide them with the opportunity to meet people in the ED and potentially shadow one or two shifts with an EM resident or faculty to gain some perspective on the program.

APPLYING TO AN EM RESIDENCY

When students start the application process for residency, they should make sure to work closely with a mentor to guide them through the decision-making process. There are several ways to find a mentor, including medical student EM interest groups, national organizations (American College of Osteopathic Emergency Medicine Resident Student Organization, American Academy of Emergency Medicine Resident/Student Association, Emergency Medicine Residents' Association, Society for Academic Emergency Medicine E-advisor), and physicians within one's own community (10–12).

The biggest decision students have to make will be the choice of applying to the osteopathic or allopathic match. This is a complex decision, and accordingly, students should consider what factors are most important to them (i.e., location of program, type of training, personal choice). It is also important that the student understands his/her competitiveness as a candidate.

When applying to both types of residencies, students have to make sure they understand that the osteopathic and allopathic application process and Match occur at different times in the year. The application process through the Electronic Resident Application Service begins for the osteopathic programs months earlier than for the allopathic Match (e.g., for the 2018 match season, the submissions for osteopathic match started on July 15, vs. submissions for the allopathic match started on September 15—but these may change and should be checked every year). The Osteopathic Match results were released in February, and those of the Allopathic Match were released in March (3,13).

Students who applied to both types of programs and get accepted to a program in the Osteopathic Match are automatically withdrawn from the Allopathic Match. On the other hand, if a student does not participate in the Osteopathic Match, and then doesn't match within an allopathic program (which is after the Osteopathic Match), he/she may have a more difficult time trying to scramble into either type of program. As such, these decisions need to be made in consultation with an advisor or mentor who is well versed in providing advice to applicants.

WHICH ALLOPATHIC PROGRAMS INTERVIEW AND ACCEPT DO STUDENTS?

The answer to this question changes year to year, and the best way the student can obtain this information is

through other students, residents, and faculty who have been involved with the specific residency he/she is interested in. Reviewing the program's website for current or past osteopathic residents or faculty is a quick way to gauge an allopathic program's receptiveness to osteopathic applicants. Other ways would be contacting the program coordinator or residents within the program, as well as asking other students who have rotated or interviewed at that specific program. The best source is the program itself; so, the student should not be afraid to ask.

SINGLE GRADUATE MEDICAL EDUCATION (GME) ACCREDITATION SYSTEM

Conveniently, these hindrances that osteopathic students have been facing are expected to come to an end very soon with the emergence of the Single Accreditation System. The Memorandum of Understanding, an agreement to have a single GME accreditation system as of July 1, 2020, was announced in February 2016. This agreement was the result of years of discussions between the American Osteopathic Association (AOA), ACGME, and the American Association of Colleges of Osteopathic Medicine. According to this agreement, both osteopathic and allopathic medical school graduates can pursue their residencies or fellowships in ACGME-accredited programs (14–18). Accordingly, programs that are currently AOA accredited have to receive an initial ACGME accreditation by June 30, 2020.

Beyond June 30, 2020, the AOA will no longer accredit residency programs, so these programs must receive initial ACGME accreditation by June 30, 2020 (14,19). AOA-accredited programs first receive ACGME preaccreditation, which means that the program in the process of attaining initial ACGME accreditation followed Initial Accreditation and Continued Accreditation (14,20). Similarly, ACGME-accredited programs can apply for "Osteopathic Recognition," which indicates that the program is committed to teach and assess Osteopathic Principles and Practice at the GME level. As of April 2018, 77% (n = 48) EM AOA-accredited programs have ACGME accreditation, 42 of which received initial accreditation, and 6 have continued accreditation (21,22).

As of July 2020, when the single GME accreditation system becomes effective, all programs will be accredited by the ACGME. Osteopathic students are advised to take the USMLE Step 1 examination in addition to COMLEX (23).

CONCLUSION

Osteopathic students have additional complex decisions to make when applying to any residency program. The

most important factor in making these decisions is to have an experienced mentor to discuss goals, options, and plans that are specific to their career choice. However, with the emergence of a single GME accreditation system as of July 2020, many of these issues are expected to resolve, and the application and match process is believed to become easier.

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