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NEXUS Introduction to Emergency Medicine Course: Resident-Taught Multi-Modality Medical Student Elective

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WHERE ARE THE MILITARY RESIDENCY PROGRAMS LOCATED?

- Army
 - Augusta University Medical Center (GA)
 - Fort Hood – Darnall (TX)
 - Fort Lewis – Madigan (WA)
 - Fort Sam Houston – SAMMC (TX)
- Navy
 - Navy Medical Center Portsmouth (VA)
 - Balboa (San Diego)
- Air Force
 - Fort Sam Houston – SAMMC (TX)
 - Nellis Air Force base (Civilian led) (NV)
 - Travis Air Force base (Civilian led) (CA)
 - Wright Patterson Air Force base (Civilian led) (OH)

THE POINT SYSTEM

The military uses a structured point system to rank all applicants, but the process is different for each branch of the service. When the Joint Service GME Selection board meets, each applicant is evaluated and given a point score based on success in medical school (class rank and USMLE / COMLEX scores), suitability (based on clerkships, interviews, LORs), research (more points for peer reviewed and multiple publications), and prior military service. Every military applicant will be put in an order based on their points. Based on the needs of each service, which may change drastically every year, a cut off line is set.

SUCCESS IN THE MILITARY MATCH

The Emergency Medicine military match is becoming more competitive. Success in the military match is largely based on the same things as the civilian match: course and clerkship performance, class rank, standardized testing scores, letters of recommendation, and contributing to research and extracurricular activities. Although the point system is in place, there are subjective components such as interviews and "suitability".

Much like the civilian match, if there is a particular place you hope to do your residency, you should try and schedule a 4th year clerkship there. All HPSP students should perform a rotation at a military hospital. This gives the staff a chance to get to know the potential applicants. Knowledge and interest in the military and the customs and courtesies associated with it can go a long way. Letters of recommendation and support from military physicians may carry more "weight" than civilian.

WHAT IF I DON'T MATCH?

Unfortunately due the way the match is set up, this can be a reality for some people. However, if you do not match into a military OR civilian spot, there are still options.

- a) Switch into a military residency in another field, if available
- b) Do a one year civilian or military internship (transitional PGY-1 year)

Afterwards, you may do one of the following:

- a) Reapply to for residency (with the opportunity to obtain more points)
- b) Serve as a General Medical Officer (GMO): GMOs (Flight Surgeons and Undersea Medical Officers) provide care to active-duty personnel and gain military-specific medical training. Time as a GMO fulfills active-duty service obligation and may make your application more competitive when you reapply to the residency of your choice.

BOTTOM LINE

The military match is a difficult system to navigate and many aspects of it can change from year to year and is different for each branch of the military, it is very important to find a mentor in your own who is knowledgeable about the process to help guide you. The following is a list of a few key points:

1. Focus on success during medical school following the same principles outlined in the CORD Student Advising Task Force (SATF) **EM Applicant's Frequently Asked Questions and EM Applying Guide**.
2. Start preparing early: find a mentor who is knowledgeable about the military match process to guide you. Consider reaching out to the military training programs to learn about timelines specific to their program. (Students may also sign up for a military resident mentor through EMRA. Mentorship application and information is available at <https://www.emra.org/students/mentorship>)
3. Strongly consider an EM rotation at a military hospital in addition to a civilian program.
4. It is imperative that you go through the military match and interview at the programs even if your goal is to match at a non-military program. If you do not interview with the military you will not be eligible for the civilian match.
5. Plan for civilian interviews and, when possible, schedule them for late December or January of your 4th year.

For more detailed information on military EM please [click here](#) for an expanded FAQ document created by the Government Services Chapter of the American College of Emergency Physicians (GSACEP).

44 NEXUS Introduction to Emergency Medicine Course: Resident-Taught Multi-Modality Medical Student Elective

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Background: Emergency Medicine has become an increasingly popular specialty choice among US medical students. Although students may enter with a clear interest in emergency medicine, few medical schools incorporate early exposure the specialty.

Educational Objectives: We sought to establish an extracurricular medical student classroom elective covering basic concepts of emergency medicine taught by emergency medicine residents. By using residents as primary teachers, we intended to conduct the course without strain on departmental faculty resources, foster improvement in resident teaching abilities, and cultivate mentorship relations between residents and medical students.

Curricular Design: The course consisted of weekly 90 minute didactic sessions covering eight cardinal clinical presentations in emergency medicine. A different senior emergency medicine resident taught each session. The sessions were divided between tabletop interactive case discussions and brief hands-on procedural teaching covering maneuvers that a medical student might reasonably be expected to perform during medical school (i.e. operating a BVM, attaching a cardiac monitor). Additionally, residents were encouraged to teach the same topic in subsequent semesters, providing an opportunity to continually develop their presentation in response to learner feedback.

Impact/Effectiveness: Each session over two semesters was rated in three categories, each on a scale of 1 through 5, 1) educational value of session, 2) educator's teaching ability, and 3) educator as a role model. Our first semester's sessions received an average rating of 4.1, 4.2, and 4.3 respectively in the above categories, and our second semester received an average of 4.3, 4.5, and 4.5 respectively. A large number of constructive comments were also collected to guide subsequent sessions and improve upon future semesters. The course was received with overwhelming enthusiasm and we were unable to meet the demand of medical students wanting to attend sessions and residents wanting to teach sessions. With minimal

strain to the emergency medicine department or curricular adjustments of the school, we were able to establish an early presence of emergency medicine to medical students while simultaneously improving resident teaching skills.

45 Novel Cost-Effective Model to Simulate Corneal Foreign Body Removal

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Background: Corneal injury from foreign bodies (FB) is a common complaint in the emergency department (ED), but deeply embedded corneal FB are much less common and more challenging to remove. Individual resident experience with corneal FB removal is highly variable. Through simulation, ED residents can practice skills to which they may have limited clinical exposure.

Educational Objectives: To teach ED residents several techniques for removing embedded corneal FB using a novel eyeball model to mimic the feel and consistency of the human cornea.

Curricular Design: Model eyeballs (Fig. 1) were crafted with gelatin dessert (Jell-O® Jigglers recipe) poured into watercolor trays to make the rounded shape of the cornea and into baby bottle caps to represent the rest of the eye. Prior to cooling, shavings from a metal finger splint were placed into each well. The hardened “corneas” with FB were removed from the molds and easily adhered to the “globe” in the bottle caps.

Thirty ED residents participated in a 1-hour hands-on workshop. After a brief presentation on various methods for corneal FB removal (e.g. using a needle tip on a syringe or with an electric burr), residents paired up to practice these techniques with the eyeball models (Fig. 2). Faculty instructors provided direct observation and feedback. Residents were given a 3-question anonymous survey at the conclusion, soliciting prior experience with corneal FB removal, how realistic the eyeball models felt, and how helpful the session was to their training.

Impact/Effectiveness: Prior to this workshop, only one third of residents had removed more than 2 deeply embedded corneal FB. This hands-on approach with the gelatin model allowed all participants to practice until they felt more comfortable. The majority of residents found the simulated experience very realistic, and all participants

found it either very helpful or outstanding to their training.

This novel, cost-effective eyeball model is easily duplicable, portable, and can be easily utilized in large group training sessions. Each model also accommodates multiple corneal FB, giving the learner multiple opportunities to practice various techniques.

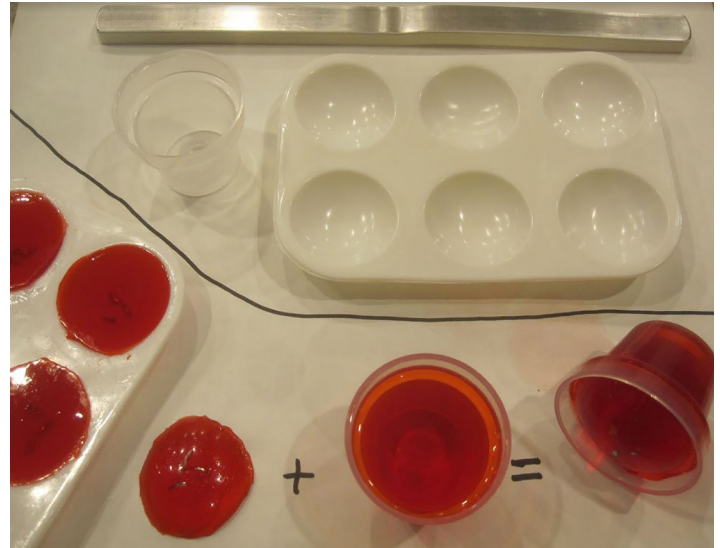


Figure 1.

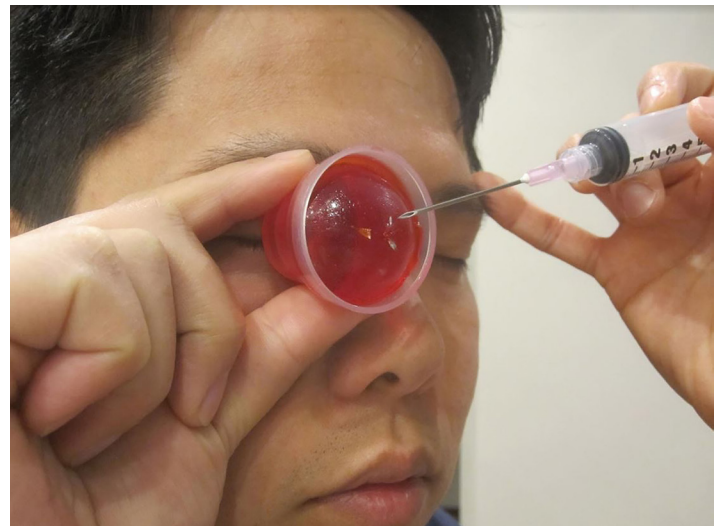


Figure 2.