7 Time to Dust Off Your Passport: A Roadmap to Enhance Your Path to the EM Workforce

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Learning Objectives: The goal of this project was to promote early professional and clinical development of residents by creating a well-organized, visually-appealing roadmap of co-curricular requirements to augment resident training and provide a well-rounded residency experience.

Background: With the rapid growth of EM as a specialty and an increasing number of accredited residency programs, EM has become increasingly more competitive. EM physician workforce projections are daunting, particularly to current and future trainees. The prospect of securing a desirable and fulfilling job after residency is becoming exceedingly more uncertain, even with fellowship training. While there are evolving larger-scale initiatives to address this, an onus falls on individual trainees and their residency programs to improve resident skillset and marketability.

Curricular Design: Core faculty from various EM subspecialties proposed unique learning experiences within their respective areas of expertise to enhance resident training. Determined by educational benefit, feasibility, and potential impact, the co-curricular requirements were compiled into the Resident Citizenship Passport (Image 1), a visual roadmap organized by subspecialty and class year. This provides EM residents with opportunities to augment their skills as well-rounded EM physicians and educators. It includes elements of experiential learning through concrete learning experiences and encourages learners to reflect on their experiences to create new educational content. Social cognitive learning methods facilitate close interaction with faculty members and staff, leading to early mentorship and timely professional development. A slight modification of requirements was made for senior residents as this was implemented amidst their training. Progress is actively tracked through a google sheet, which residents can continually view.

Impact/Effectiveness: While still in a pilot phase, this innovation has been easily implemented and well-received by the residents, as it lays out the requirements in a centralized, organized, and visually-appealing graphic. This has also unexpectedly incentivized residents to fulfill requirements by inspiring an element of competition amongst one another.

Image 1.

8 Effectiveness of a collaborative, virtual outreach curriculum for 4th year EM-bound students at an HBCU

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Learning Objectives: We sought to 1) teach the approach to core complaints in EM, 2) teach key skills in EM, 3) de-mystify the process of applying to an EM residency program, and 4) connect students with residents and faculty in the field of EM.

Introduction/Background: Despite having a diverse patient population, emergency medicine (EM) remains among the medical specialties with the lowest number of residents and attendings underrepresented in medicine (URiM). Increasing awareness of the field of EM in medical schools that are affiliated with Historically Black Colleges and Universities (HBCUs) is one way to increase the pipeline of URiM in EM. Currently,

however, there are zero HBCUs with academic emergency medicine departments. As representatives of four departments of EM, we partnered with one HBCU to attempt to fill this gap for EM-interested students on their 4th year EM home rotation.

Educational Objectives: We sought to 1) teach the approach to core complaints in EM, 2) teach key skills in EM, 3) demystify the process of applying to an EM residency program, and 4) connect students with residents and faculty in the field of EM.

Curricular Design: Educational objectives were developed in conjunction with the faculty advisor to the 4th year EM rotation. We created a 4-week didactic program, with content organized into weekly 4-hour blocks, each led by a different department of EM, on a virtual, interactive platform. Content was mapped and coordinated, pre-reading was assigned and each day included a mix of clinical topics and "advising" sessions.

Impact/Effectiveness: A post-curricular survey found universal agreement from students on whether the curriculum was effective in meeting the above goals. Narrative feedback from students highlighted the value of meeting with faculty and residents from different programs, and from going through cases in real time. Informal feedback from supervising faculty at the host-institution was also very positive, particularly in terms of readying students for away rotations. Although our program was targeted towards students at one HBCU, it could be expanded to any medical school without an academic emergency medicine department.

Table 1. Curriculum overview.

Date	July 27th 8a-noon EST	Aug 3rd 8a-noon EST	Aug 9th 9a-1p EST	Aug 18th 8a-noon
Lecture Topics	Personal Statement	Presentation skills (H&P, differentials, etc.)	How to choose the right program for you	Application and Interviewing Process
	Chest pain	Altered Mental Status	Tox Overview	Headache
	Shortness of breath	Abdominal Pain	Shock/ Sepsis	GU emergencies
	X-rays	EKG intro	Vaginal Bleeding	Endocrine/ Electrolytes/ Hyperglycemia
	Social EM (Substance abuse, Verbal de-escalation, etc.)	US Basics	ATLS	ACLS/ BLS

Table 2. Post-curricular survey results. N=3 responses (11 total students surveyed).

Question	*These sessions helped me learn the approach to core emergency medicine topics (abdominal pain, chest pain, headache, etc) moreso than I would have been able to do on my own.*	*These sessions helped me learn key skills for excelling in an emergency medicine rotation, including oral presentations, EKG interpretation, x-ray interpretation and ultrasound, moreso than I would have been able to do on my own.*	*These sessions helped me learn about the process of applying to and selecting an EM residency program.*	*These sessions allowed me to connect with faculty and resident mentors to learn more about the field of emergency medicine*
Options	Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree	Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree	Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree	Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree
Responses	100% "Strongly Agree"	100% "Strongly Agree"	66% "Strongly Agree," 33% "Agree"	100% "Strongly Agree"

Research Abstracts

1 Resident Clinical Exposure Variability at Graduation

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Learning Objectives: To quantify individual differences in resident clinical exposure during training at a 3-year academic emergency medicine residency.

Background: Experiential learning theory suggests that clinical exposures during residency are critical to developing expertise. Research in other specialties has shown significant individual differences in resident clinical exposures during training, but this has not been recently evaluated in emergency medicine (EM).

Objective: To quantify individual differences in resident clinical exposure during training at a 3-year academic emergency medicine residency.

Methods: We performed a retrospective review of electronic health records from 2013-2021 at our main clinical site (of four) to quantify the number and type of clinical encounters seen by each resident. Visits were attributed to the first assigned resident. We included data from residents who completed all three years of residency consecutively. We categorized primary patient chief complaints according to the 20 domains of the ABEM Model of Clinical Practice following a published consensus method with EM faculty. We calculated and reported descriptive statistics.

Results: We collected data from 70 residents. Means and ranges of exposures in the top 10 most commonly identified domains are displayed in Figure 1.

Conclusions: We found variability in resident clinical exposures at our primary training site. Residencies may benefit from examining resident clinical exposures to identify opportunities for individual resident improvements.

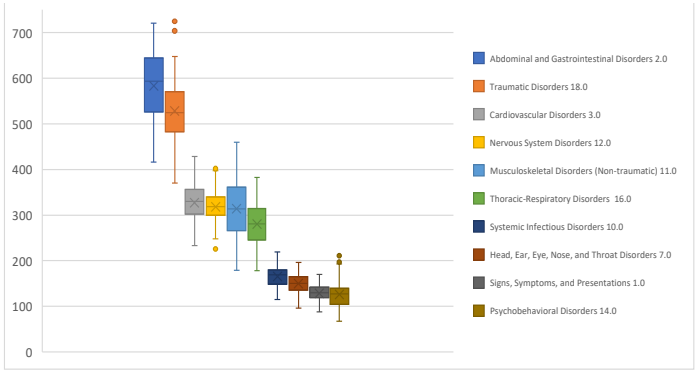

Figure 1. Top 10 most common clinical exposure domains seen by graduation, 2013-2021.