and 357 in the post-intervention period, resulting in a 210% increase in the number of evaluations completed.

Conclusions: The described intervention significantly increased completion of resident evaluations during the study period. Limitations include a short study period and low survey response rates.

40 It's Scarlet in the Study! Deciphering Toxic Pathologies in a Murder Mystery Party

Michael DiGaetano, Colleen Donovan, Aarsh Shah, Denise Fernandez

Background: Gamification in medical education enhances engagement and learning, but applications for toxin education in EM residency are limited. Our project introduces a "whodunnit" gamified approach to teach EM residents about toxic pathologies, combining storytelling with diagnostic skills. This method addresses an educational gap by embedding toxicology within an interactive mystery.

Educational Objectives:

- Improve clinical reasoning and toxidrome identification via casework
- Engage teams in an exciting and collaborative "whodunnit" setting
- Integrate wellness/team building into core toxicology content

Curricular Design: We chose three complex toxidromes (carbon monoxide, cyanide, and sodium nitrite) as anchors for our "murders." Set in a fictional town, participants were prebriefed on rules and character profiles (created using generative AI). Three individuals were chosen as "murderers" and only given knowledge regarding their specific toxidrome. Participants were divided into three teams and given 20 minutes to uncover method, motive, and murderer (3Ms) by sifting through physical evidence boxes with "autopsy reports" and toxidrome clues. Teams debated and defended their 3M accusations in an open forum, with a final debrief and review of key toxidromes. Residents completed pre- and post-tests on toxicology topics without specifying game details. They also gave feedback on the game as an educational tool in a post-game survey.

Impact/Effectiveness: There are no published murder mystery-style learning activities in EM residency didactics. This approach yielded a 16.7% increase in toxin knowledge, with PGY2s showing the most improvement in confidence and knowledge. All participants agreed that this session improved toxidrome knowledge and was a good use of their educational time, with 69.6% and 78.3% strongly agreeing, respectively. Future session plans include smaller groups and more toxidromes. This project shows an engaging model with replication potential for EM programs.

41 Assessing Structural Competency Using ACGME Milestones: Uncovering Challenges and Needs

Ridhima Ghei, Taylor Extavour

Background: Efforts to improve cultural competency in Emergency Medicine (EM) residency training have evolved over time. In 2008 and 2011, leaders advocated for curricula that addressed diversity, cultural competence, and implicit bias. By 2020, critiques of traditional approaches prompted a shift toward 'Structural Competency,' which emphasizes the societal factors impacting health. The 2021 ACGME Milestones overlap with this mission, especially in Interpersonal and Communication Skills 1 (ICS1) and Systems-Based Practice 3 (SBP3). However, assessing these competencies remains challenging, underscoring the need to understand current practices in order to guide future training.

Objective: This study explores how EM program leaders assess ACGME milestones ICS1 and SBP3, hypothesizing that variations in methods and subjectivity affect residents' educational outcomes. Methods: A focus group was conducted with EM program directors (PDs) and assistant PDs to discuss ICS and SBP milestone assessment practices. Purposive sampling ensured diverse representation in terms of gender, location, and program length. Questions focused on assessment techniques, milestone expectations, and educational initiatives. Two investigators inductively analyzed the transcript, with discrepancies resolved through discussion.

Results: Participants reported varied assessment tools, including shift evaluations, simulation, and faculty/patient feedback, which were compounded by subjective interpretations of milestones and scores simply based on training year. Recommendations included enhanced faculty development around assessment and more standardized processes.

Conclusions: Findings suggest EM residency leaders face challenges and ambiguity in assessing ACGME competencies. Standardizing evaluation processes and establishing guidelines may improve milestone score accuracy and reliability. Clarities around assessment can subsequently guide educational initiatives around structural competency.

42 Job Placement and Satisfaction among Emergency Medicine Residency Graduates

Brian Milman, Stephanie Stroever, Mary Edens, Fiona Gallahue, Michael Kiemeney, Albert Kim, Miriam Kulkarni, Andy Little, Anthony Sielicki, James Morris

Background: Prior Emergency Medicine (EM) workforce studies projected a future surplus of EM physicians, raising concerns about job prospects for EM trainees. The projected

surplus was a significant factor in the unusually high number of unfilled residency positions in recent NRMP Match cycles. Current data show a rebound in applications for the 2025 Match and an overall optimistic view among trainees about EM job opportunities. However, limited data exist on actual job placement and satisfaction of graduates.

Objectives: This study aimed to (1) characterize career paths of EM graduates, (2) assess residents' job placement satisfaction perceived by program directors (PDs), and (3) evaluate the feasibility of gathering comprehensive job placement data from EM residency PDs.

Methods: A cross-sectional feasibility study was conducted by surveying EM residency PDs using purposive sampling. Program characteristics (ERAS region, program length, site type, staffing model, and establishment date) and resident outcomes (fellowship or job type, geographic preference, employment model, and satisfaction) were collected. Descriptive statistics were used for quantitative analysis.

Results: Thirty-one PDs (68.9% response rate) participated. PDs reported their residents obtained jobs (67.2%) or fellowships (32.1%) prior to graduation, with high satisfaction levels (92%). Most graduates (98%) secured employment in their desired geographic area and practice setting. Barriers to job placement included geographical restrictions and limited job openings in specific cities.

Conclusions: The findings indicate high job placement satisfaction among recent EM graduates. This study demonstrates the feasibility of using PD-reported data to track job market outcomes and suggests further studies could improve understanding of regional job availability and hiring barriers for EM graduates. Collecting longitudinal data will be essential to accurately predict future workforce trends

43 Feasibility of a Performance Benchmark System Using Emergency Medicine Resident End-Of-Shift Assessments

Ryan McKillip, Ryan Tabor, Ravi Chacko, Elise Lovell

Background: Early identification of residents at risk of underperformance is essential for effective intervention. Periodic performance assessments may not detect subtle or sudden declines in progress. Competency-based end-of-shift assessments have recently been introduced within EM residencies, but it is not known whether data from these assessments can establish predictive benchmarks for resident progress to facilitate early detection of underperformance.

Objective: This study aims to determine the feasibility of creating benchmarks for EM resident performance using multi-year data from EM resident end-of-shift assessments.

Methods: An end-of-shift assessment using 22 EM entrustable professional activities (EPAs) was implemented within a three-year residency program at an urban tertiary care hospital. Faculty members assessed level of required supervision on a scale of 1 to 5, from "I had to do it" to "I did not need to be there at all." Assessments were collected from February 2023 to September 2024 and then separated by the residents' month in training. The 25th percentile was calculated for each month, along with combined mean entrustment level (EL) and standard deviation (SD). Individual resident mean ELs were compared to these benchmarks.

Results: A total of 5,441 assessments were completed for 70 residents during the period. The number of assessments per resident ranged from 4 to 161. The median assessments per resident was 91 and the mean was 77.7 (SD 47.6). Mean EL ranged from 2.7 (month 2) to 4.9 (month 36), with SD ranging from 0.40 (month 36) to 0.94 (month 5) (Figure 1). Nineteen residents had at least one month with a mean EL below the 25th percentile, 4 had 2 consecutive months, and 1 had 4 consecutive months (Table 1).

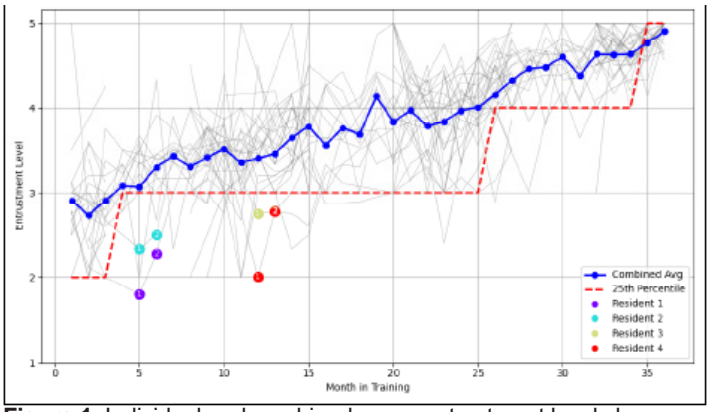

Figure 1. Individual and combined mean entrustment levels by month in training. Residents are flagged if their average entrustment level falls below the 25th percentile for two consecutive months, ignoring months 35 and 36, or months with 2 or fewer assessments.

Table 1. Number of residents with consecutive months in the bottom quartile.

Months in Bottom Quartile	Number of Residents
1	19
2	4
3	1
4	1

Conclusion: It is feasible to use the data generated by EPA-based end-of-shift assessments to establish benchmarks that identify residents at risk of underperformance. Further study is needed to evaluate if these benchmarks aid program interventions.