34 Using the QSAT to Generate Multi-Source Feedback on an Adult Simulation Case

Jong M, Kane B, Elliott N, Nguyen M, Matuszan Z, Morolla L, Johnson S, Goyke T, Gernerd D, Sabbatini S/ Lehigh Valley Health Network, Bethlehem, Pennsylvania; Emergency Medical Institute, Allentown, Pennsylvania

Background: The Accreditation Council for Graduate Medical Education (ACGME) lists multi-source feedback (MSF) as a suggested evaluation method for 10 of the 23 Emergency Medicine (EM) Milestones. To date, there has been little study comparing EM resident MSF on a specific patient encounter. The Queen's Simulation Assessment Tool (QSAT) has been validated as being able to, with faculty feedback, discriminate between resident performances in a simulation setting.

Objectives: Using the QSAT, this simulation study seeks to determine the degree of agreement of MSF on a single simulation case.

Methods: This IRB approved study was conducted at a single, dually approved, four year EM residency which trains 13 residents a year. An adult simulation resuscitation case was developed with specific behavioral anchors on the QSAT, which provides feedback on a 1-5 scale in each of 5 categories. Performance on the simulation case was gathered from each of 6 participants or observers in the simulation. The resident leading the case self-evaluated. The resident received MSF feedback from each of a junior resident peer, a nurse, an EMS provider, and two attending faculty members. Reported are the mean scores and standard deviation for each.

Results: A total of 34 (12 female, 22 male) residents were enrolled to serve as the case leader. At the time of enrollment, 4 were PGY 2, 10 were PGY 3, and 20 were PGY 4. The single peer evaluator began the study as a PGY 1. The 34 nurses (30 female, 4 male) averaged 6.4 years of experience. The EMS provider has 13 years of experience. The faculty members have 14 and 15 years of experience respectively. Table One demonstrates that the residents routinely evaluated themselves more critically than they were evaluated by any of the other groups. If the faculty are used as the gold standards, the scores in each category for each source of MSF of the QSAT overlapped within a standard deviation.

Conclusions: In this single site cohort residents rated themselves lower on the QSAT than other sources of MSF did. It appears that the QSAT can be used to provide MSF wherein each source of feedback is similar to that of a faculty member. If the relationship is further validated, this may allow for MSF on specific resident performance from a variety of sources which would mirror a faculty evaluation of that encounter.

Table One. Reported means and standard deviations (N of 34 for all cells)

Role QSAT Category	Self	Faculty 1	Faculty 2	Peer	Nurse	EMS
Primary Assessment	4.06 (.49)	4.88 (.33)	4.94 (.24)	4.79 (.48)	4.56 (.50)	4.76 (.50)
Diagnostic Actions	3.79 (.69)	4.62 (.49)	4.56 (.66)	4.18 (.80)	4.29 (.68)	4.41 (.61)
Therapeutic Actions	4.06 (.81)	4.50 (.66)	4.12 (.98)	4.26 (.55)	4.62 (.59)	4.47 (.71)
Communication	4.09 (.67)	4.88 (.41)	4.88 (.33)	4.62 (.55)	4.68 (.59)	4.71 (.58)
Overall Assessment	3.88 (.59)	4.74 (.45)	4.47 (.79)	4.38 (.65)	4.41 (.50)	4.50 (.75)

35 USMLE Scores Do Not Predict Ultimate Clinical Performance in an Emergency Medicine Residency Program

Sajadi-Ernazarova K, Ramoska E, Saks M, / Drexel University College of Medicine, Philadelpha, Pennsylvania; Crozer Chester Medical Center, Upland, Pennsylvania

Background: "High-stakes" multiple choice exams such as the United States Medical Licensing Examination® (USMLE) are widely used to gauge mastery of basic and clinical science knowledge. Scores on these exams are important screening and applicant ranking criteria, used by residency. This study attempts to clarify the relationship between performance on two USMLE exams (Step 1, Step 2CK) with global clinical performance in an Emergency Medicine (EM) residency program.

Objectives: We tested the hypothesis that USMLE scores do not predict clinical performance after residency training.

Methods: All graduating residents from our University-based EM residency program between the years 2008 and 2015 were eligible for inclusion. Residents that had incomplete USMLE records, were terminated, transferred out of the program, or did not graduate within this timeframe were excluded from the analysis.

Clinical performance was defined as a gestalt of the residency program's leadership (program director, associate program director, and assistant program director) during the specified years. They were initially blinded to each other's grouping selections and classified the residents into three sets: top clinical performer, average clinical performer, and lowest clinical performer. Dissimilarities of the rankings were adjudicated during a consensus conference. The residents' files were then accessed and the residents' USMLE scores were obtained.

Results: During the eight years of the study period, there were a total of 115 graduating residents: 73 men (63%) and 42 women. Nearly all of them (109; 95%) had allopathic medical degrees; the remainder had osteopathic degrees. Table 1 shows the distribution of the final consensus ranking of the residents. The inter-rater reliability of the initial rankings was strong with an ICC = 0.845 ($p < 0.01$).

There was a poor, but statistically significant, correlation between our ranking of clinical performance and the Step 2CK score. There was not a statistically significant correlation between clinical performance and the Step 1 score. (See Table 2).

Conclusions: Neither USMLE Step 1 nor Step 2CK were good predictors of the actual clinical performance of residents during their training, we feel that their scores are overemphasized in the resident selection process.

Table 1. Final ranking of residents

Category	Number	Percentage
Top	38	33.0%
Middle	44	38.3%
Bottom	33	28.7%

Table 2. Correlation between clinical performance and examination scores

	USMLE Step 1	USMLE Step 2CK
Correlation Coefficient	0.067	0.205
P Value	0.49	0.04
N	109	106

36 USMLE Step 1 Minimum Score Thresholds as an Applicant Screening Filter by Emergency Medicine Residency Programs

Jarou Z, Davis B, Kellogg A, /Denver Health Medical Center/University of Colorado, Denver, Colorado; Technology Services, American College of Emergency Physicians, Irving, Texas; Baystate Medical Center/ University of Massachusetts, Springfield, Massachusetts

Background: The number of residency applications per applicant has risen dramatically. A 2016 survey of residency program directors by the AAMC showed that 75% of residency programs across all specialties use filters or minimum thresholds when selecting applicants to interview, including 54% of emergency medicine (EM) programs. This agrees with a 2014 survey conducted on the CORD listserve which found that of programs using filters, 56% filter by Step 1 failures or minimum score. Students cannot make targeted and informed residency application decisions without transparent data to assess their competitiveness for a given program.

Objectives: The purpose of this investigation is to describe the use and minimum thresholds of USMLE Step 1 scores by emergency medicine residency programs.

Methods: Data regarding the USMLE Step 1 score below which programs would generally not grant an interview and invitation of applicants who have failed Step 1 in the past 3 years were extracted from EMRAMatch.org, a collaborative, searchable, filterable residency directory created by EMRA, CORD, CDEM, and ACEP. The data on EMRA Match was initially populated through a survey via the CORD listserve and programs are automatically prompted to update their information.

Results: Of the 239 residency programs listed, 100% provided information regarding consideration of applicants who had previously failed Step 1 and 85% responded with minimum thresholds for Step 1 scores. Overall, 30% invited applicants with previous Step 1 failures to interview. One-third of programs indicated that all applicants are considered regardless of their Step 1 score, while 17% of programs used a minimum of 200, 17% used 210, 13% used 220, and 1.5% used 230. Another 17% of programs declined to disclose a minimum threshold indicating that while filters are used, they will not share this information.

Conclusions: Sixty-five percent of EM programs filter by Step 1 score, higher than previously reported. One method to address over application to residency programs is to provide applicants with the information needed to assess their competitiveness. Efforts should be made to encourage the 17% of programs that do not currently disclose their minimum thresholds to do so. For applicants who have previously failed Step 1, they should be encouraged to target programs that have interviewed applicants with Step 1 Failures.

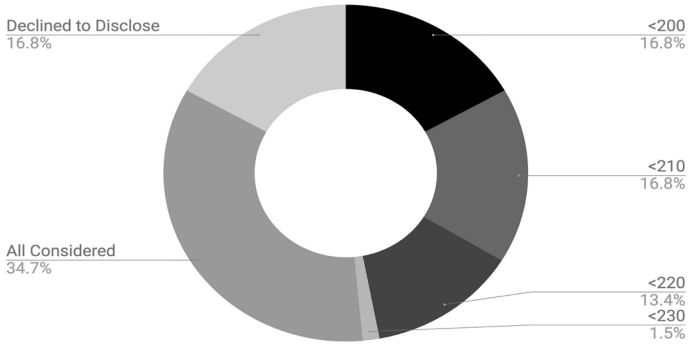

Figure 1. The use, disclosure, and distribution of minimum USMLE Step 1 score thresholds by emergency medicine residency programs for consideration of applicants.