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Residents as Teachers: Applying the Foundations Model for Structured Near- Peer Education

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22.2-31.8]). This increase in the number of evaluations has also resulted in a more than threefold increase in the total character count of qualitative feedback per session (266.2 vs 851.5). This improvement in the quantity and quality of feedback incentivizes faculty participation and allows for more robust program evaluation.

#	Total Attendance (Hrs)	Attendance % TOTAL	Attendance % TO DATE	Current Through
1	53.0	26.2%	55.8%	11/28/2018
2	43.5	21.5%	45.8%	
3	76.5	37.8%	80.5%	
4	55.8	27.5%	58.7%	
5	70.0	34.6%	73.7%	
6	77.5	38.3%	81.6%	
7	61.4	30.3%	64.6%	
8	52.8	26.0%	55.5%	
9	37.8	18.6%	39.7%	
10	28.0	13.8%	29.5%	
11	78.0	38.5%	82.1%	
12	78.3	38.6%	82.4%	
13	38.0	18.8%	40.0%	
14	33.8	16.7%	35.5%	
15	47.3	23.3%	49.7%	
16	65.5	32.3%	68.9%	
17	48.5	24.0%	51.1%	
18	30.0	14.8%	31.6%	

42 Innovative Evaluation Tool: Fast, Robust and Mobile Engaging Faculty in Both Written Evaluations and Verbal Communication

Harrison R, Goldflam K, Tsyrlunik A, Wood B, Della-Giustina D / Yale School of Medicine, New Haven, Connecticut

Background: Across all specialties, residency leadership is required to provide evaluation and feedback to residents. We identified a need for improved compliance with resident evaluation of clinical performance within the emergency department.

Educational Objectives: A novel evaluation tool was developed to engage more faculty in the completion of evaluations and encourage more timely and useful feedback to residents. The evaluation tool assesses Milestones, procedural competencies, and general feedback in a quick, easy, and mobile fashion.

Curricular Design: Gathering data from two focus groups and two internal surveys, we developed an evaluation tool using Qualtrics that faculty could access via a mobile device. A simple version of the tool was initially piloted, and modifications have since been made to make it more robust. Currently, the evaluation tool is a web-based survey form easily accessed on a mobile device or

computer. It takes 3-4 minutes to complete. The evaluator is given two randomized questions from a pool of 17 that represent the non-procedural Milestones. The language of the questions is designed to extract the clinical aspects of the Milestones. The evaluator is not forced to place the resident on a scale, but rather check all competencies that apply. The evaluator is then given a list of procedures. If the evaluator has observed a procedure performed by a resident, he or she can evaluate the resident's performance based on Milestone competencies. Lastly, there are two qualitative questions that can be dictated if using a mobile device: strengths of shift, and items to work on/medical topic to focus on. A prompt is then provided to assess whether verbal feedback was given to the resident.

Impact/Effectiveness: This survey-based evaluation form is an easy and quick method for faculty to complete resident evaluations. Compliance with evaluations has increased from approximately 18 faculty with the traditional system to over 45 with the new tool. Additionally, residents were surveyed after receiving the new evaluations and found the information to be more specific and more useful. Attendings have increasingly self-identified an increase in the amount of verbal feedback that is being communicated. During the pilot phase, 39.4% (n = 494) of individual evaluations noted that the attending did not provide any feedback. In the current model after a year of implementation, 31.7% (n = 1083) of individual evaluations noted that attendings did not provide feedback. The amount of constructive feedback has increased from 32.9% (n = 494) to 43.12% (n = 1083). In summary, the new survey-based tool has proven to engage more faculty in evaluation while providing more timely and specific information to the residents. Because the tool is based on a survey system, a similar tool would be easy to implement within other emergency medicine residencies.

43 Residents as Teachers: Applying the Foundations Model for Structured Near-Peer Education

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Background: Meeting the needs of learners of different levels is one of the major challenges of resident education. Most programs cover core content by teaching to the middle, leaving beginners confused and advanced residents disengaged. Foundations of Emergency Medicine

(FoEM) was designed to address this problem, providing resources to incorporate class-directed instruction. Postgraduate year (PGY)-1 residents review fundamental knowledge with Foundations I (F1), PGY-2/3 residents are challenged by advanced topics in Foundations II (F2), and PGY-3.4 residents solidify knowledge in the role of resident teachers. No studies to date have evaluated the benefits to learners and instructors of this near-peer teaching model.

Educational Objectives: We sought to describe use of the resident instructor model at FoEM member sites, determine preferences among learners for resident vs faculty instructors, and quantify benefits to senior residents in the teaching role.

Curricular Design: Didactics within the F1 and F2 courses entail small group, oral boards-style clinical cases. Case content, focused teaching points and best practice guidelines – developed using a modified Delphi approach – are given to instructors in advance. FoEM implementation guidelines encourage member sites to incorporate senior residents as instructors to 1) challenge knowledge; 2) provide structured resident-as-teacher opportunities; and 3) allow faculty to give feedback to resident instructors.

Impact/Effectiveness: A survey of FoEM program leaders and learners was developed by our leadership team and piloted among site leaders. Formal survey administration in March 2018 rendered a 96% response rate (74 of 77 sites); 54% of site leaders reported use of resident instructors, more prominently for F1 compared to F2 cases. Senior residents (Chief, PGY-3/4) acted as instructors more frequently than advanced junior residents (PGY-2). The majority of learners in F1 and F2 preferred a mix of faculty and resident instructors (63%). Nearly all resident instructors reported educational benefit from teaching. Our results support the use of resident instructors within the Foundations model with demonstrated benefits to learners and resident instructors alike.

Table 1. Foundations of emergency medicine leader survey results.

Site Leader Survey: Resident Instructor Use
Do residents serve as instructors for Foundations cases at your site? (N=74) Counts/frequency: Yes (41, 55.4%), No (33, 44.6%)
What kind of instructors teach F1 cases? (N=70) Counts/frequency: Faculty/Fellows (66, 94.3%), Chief Residents (29, 41.4%), Senior Residents (PGY-3/4) (31, 44.3%), PGY-2 residents (1, 1.4%)
What kind of instructors teach F2 cases? (N=47) Counts/frequency: Faculty/Fellows (47, 100.0%), Chief Residents (6, 12.8%), Senior Residents (PGY-3/4) (6, 12.8%), PGY-2 residents (0, 0.0%)

Table 2. Foundations of emergency medicine learner survey results.

Learner Preferences		
Do residents serve as instructors for your F1 cases? (N=882) Counts/frequency: Yes (421, 47.7%), No (461, 52.3%)		
What type of instructors do you prefer for F1 cases? (N=421) Resident Instructors (61, 14.5%), Faculty Instructors (52, 12.4%), Mix of both (267, 63.4%), No preference (41, 9.7%)		
Do residents serve as instructors for your F2 cases? (N=657) Counts/frequency: Yes (233, 35.5%), No (424, 64.5%)		
What type of instructors do you prefer for F2 cases? (N= 233) Counts/frequency: Resident Instructors (26, 11.2%), Faculty Instructors (38, 16.3%), Mix of both (146, 62.7%), No preference (23, 9.9%)		
Resident Instructor Benefit		
Survey Item (1- Strongly Disagree, 3- Neutral, 5- Strongly Agree)	Agree or Strongly Agree	Mean
I felt comfortable teaching Foundations cases.	163/190 (86%)	4.19
I enjoyed teaching Foundations cases.	170/190 (89%)	4.30
I learned something new by teaching Foundations cases.	169/189 (89%)	4.33
Serving as a Foundations instructor had an impact on my career goals.	123/190 (65%)	3.88
Open access to curriculum content is available on the Foundations of Emergency Medicine website: www.FoundationsEM.com		

Educational Soundbites Oral Presentations

1 Using Simulation to Engage and Educate During Monthly Emergency Medicine Residency Morbidity and Mortality Conferences

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Background: Participation in morbidity and mortality (M&M) conferences are an educational requirement under the Accreditation Council for Graduate Medical Education (ACGME). There have been numerous articles published on varying ways to execute this requirement across multiple specialties, but to our knowledge there has not been a published utilization of simulation (SIM).

Educational Objectives: Our goal in providing a visual and simulated representation of a recent challenging case was to promote engagement and participation in residency conference, as well as assist in promoting educational objectives defined by the predetermined M&M case.

Curricular Design: The departmental quality improvement (QI) team chose a recent, challenging medical case with associated morbidity and mortality as usual. Once the case was de-identified, it was rewritten into a simulation case by a senior resident using a predetermined SIM case template identifying both educational objectives specific to the case and specific systems issues. On the day of conference,