is, has the effort by EM PDs to better advise top EM applicants had an effect this year? Are a greater number of top applicants who are invited early in the application season, cancelling unnecessary or unwanted EM interview invitations earlier?

Curricular Design: The ERAS database and Interview Broker were used to abstract applicant data from Healthpartners/Regions Hospital EM residency applicants for the last 3 years. The total number and dates of interview invitations and declined invitations, AOA status and USMLE scores were abstracted. The same criteria were used to invite applicants during all 3 years. The high quality of declining early applicants, based on percentage of AOA applicants and average USMLE scores, was consistent across all 3 years.

Impact/Effectiveness: The total number of interview invitations sent during the early invitation period (Sept 24 - Oct 10) averaged 85 invitations/year. During years 2013 and 2014 a mean of 87 applicants were invited and 80 were invited in 2015. Based on USMLE step 1 scores, these were above average EM applicants.

During the 2013/2014 seasons the average number of declined invitations in October=12 and November=10. In 2015, the number of declined invitations in October=23 and November=2.

When comparing the data between the 2013/14 and 2015 interview season the trend appears that the top applicants are not only declining more unnecessary interviews, but that they are declining them earlier in the application cycle. It will be interesting to see if this trend continues with EM applicants.

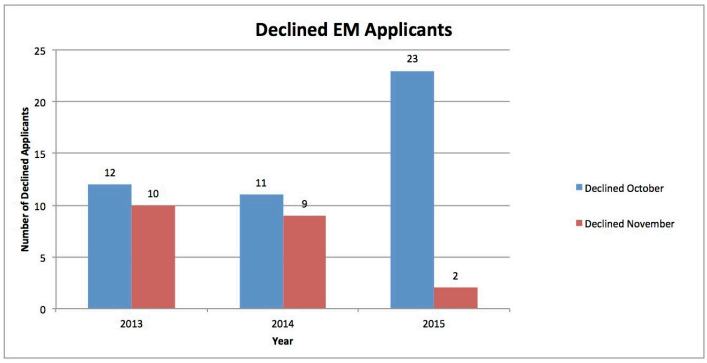

Figure.

19 Assessing Specialty Specific Milestones of 'Off-Service' Rotators during Emergency Medicine Rotation

Walter L, Edwards A/University of Alabama at Birmingham, Birmingham, AL

Background: EM faculty frequently train and evaluate non-EM residents, or 'off-service' rotators. There has been lack of standardized guidance however as to what competencies warrant assessing in any given rotator or what feedback might be useful to a rotator's 'home' service. This represents a missed opportunity to assess trainee milestones that are both sub-specialty specific as well relevant to the ED environment.

EM faculty at the University of Alabama at Birmingham (UAB) are responsible for teaching and evaluating rotators from several subspecialties during their ED rotations.

Educational Objectives:

1. Attain interdepartmental agreement on milestone core competencies, identified as both sub-specialty specific and ED relevant, for 'off-service' trainees rotating in the ED.
2. Obtain EM faculty evaluations of specialty-specific milestones for 'off-service' trainees rotating through the ED to provide appropriate individualized trainee feedback and a relevant evaluation for the rotators' 'home' service.

Curricular Design: Via interdepartmental collaboration, applicable subspecialty specific milestones were identified as relevant for 'off-service' rotator evaluation during their ED rotations.

The UAB Pediatric EM (PEM) Fellowship and UAB EM faculty identified ten PEM core competencies applicable to their fellows while rotating in the ED including 'Patient Care (PC),' 'Medical Knowledge,' 'Practice Based Learning,' 'Interpersonal and Communication Skills (ICS),' and 'Professionalism(P)' competencies. The UAB Anesthesia Residency Program and UAB EM faculty identified five Anesthesia-specific core competencies applicable to Anesthesia PGY-1s during their ED rotation (including 'PC', 'ICS', and 'P'). These competencies are assessed in binary form ('yes' or 'no') for each respective rotator shift in the ED by EM faculty.

Upon completion of ED rotation a final milestone score is submitted by the EM 'Off-Service' Rotator Faculty Director for each of the competencies. This final score, submitted to the trainee's 'home' service, is an aggregate of EM faculty shift evaluations and subjective comments, and serves as final evaluation of milestone competency attained during the trainee's ED rotation.

Impact/Effectiveness: With interdepartmental collaboration to identify milestones that are both subspecialty and ED relevant, EM teaching faculty can provide pertinent feedback to all 'off-service' rotators and accurately assess subspecialty specific core competencies for non-EM trainees. Additionally, this allows a more formalized way for the EM physicians to meet the new ACGME guidelines (NAS Program Requirements IV.A.5.g.1-5) by working in interdisciplinary teams and modeling Systems-based Practice.

20 Assessing Specialty Specific Milestones of 'Off-Service' Rotators during Emergency Medicine Rotation

Nobay F, Spillane L, Spencer M, Bodkin R, Pasternack J/ University of Rochester, Rochester, NY

Background: Error disclosure is a critical skill for emergency medicine resident's professional development. When an error occurs, critical steps in addressing the error include: acknowledging to the patient that an error occurred, discussing the clinical relevance of the error, addressing systems based issues that allowed the error to occur, steps taken to prevent future errors, and finally an apology by the provider to those involved.

Educational Objectives: To assess our current curriculum in error disclosure and to create changes to the curriculum if necessary.

Curricular Design: Our current curriculum includes hospital based and residency based activities. Residents attend a mandatory medical center presentation on error disclosure; residency based small group discussions and individualized clinical experiences. We assessed the ability of our residents to apply the principle learned to a cased based scenario that included multiple errors (omission and commission). Their answers were evaluated against a predetermined checklist of key principles in standard error disclosure. We compiled the results to evaluate areas for curricular improvement.

Impact/Effectiveness: 32 residents completed the assessment. 100% of residents acknowledged the error of commission (32/32), 34% of the residents did not recognize the error of omission (11/32). 31% did not explain the relevance of the error to the patient (10/32). 50% of the residents did not explain why the system allowed for the error (16/32). 15% did not describe how future errors would be prevented and 15% did not complete the critical step of apology (5/32).

This data emphasized that our current curriculum requires improvement. In addition, residents have knowledge gaps in error disclosure, particularly in identifying and managing errors of omission and explaining why errors occur. Future goals will be to augment the medical center based curriculum with an EM focused case based discussion of error disclosure principles. Cases will focus on language that support discussion of systems based errors with patients. The value and need for apology will be emphasized.

21 Billing and Coding Shift in an EM Residency: A Win-Win-Win Proposition

Takacs M, Stilley J / University of Iowa, Iowa City, IA

Background: Effective teaching of billing and coding has been well known to be deficient in emergency medicine (EM) residencies.

Educational Objectives: Our primary objective was to create an effective teaching method for billing and coding education in an emergency medicine residency via an inter-professional shift in our billing and coding office. Secondary objectives were to improve the efficiency and job satisfaction of our billers and coders and potentially to increase revenue in the department.

Curricular Design: We conducted a one-on-one inter-professional workshop with our lead coder. From September, 2014 to April, 2015 and during their EM 4 week rotation at the University of Iowa Hospital, one resident from each class was asked to sign up for a billing and coding shift between days 11 and 18 of their 28 day rotation. The lead coder worked individually with each resident providing a one hour interactive lecture, followed by a 1-2 hour exercise of residents coding a set of standardized charts followed by a feedback session of their performance on coding. We surveyed the residents within the week after their workshop as to the quality of this experience as a measure of our primary objective. We surveyed the coders in April, 2015 as a measure of our secondary objectives.

Impact/Effectiveness: 26 of 26 emergency medicine residents (100%) completed the inter-professional workshop and 19 of 26 residents (73%) completed the post-workshop self-assessment survey. A paired t-test on a 5 point scale comparing knowledge gained before and after the workshop showed an improvement from 3.3 to 4.3, $t = -6.18$, $p < 0.001$. Results of resident surveys are displayed in Table 1. Coders also were surveyed on a 5 point Likert scale with results in Table 2.

Table 1.

Resident Survey Question	LIkert Scale	Mean	SD
Gained a significant amount of knowledge	5	4.21	0.54
Found it beneficial	5	4.39	0.59
Wound change my clinical practice	5	4.26	0.81
Overall satisfaction with practice	7	6.16	0.60
Length of time was just right	3	2.16	0.37

Table 2.

Coder Survey Question	Mean	SD
Coders see consistent documentation of required elements	4.25	0.50
Identify that good documentation from prior year	5.00	0.00
Have seen improvement in documentaion	4.50	0.58
Note an increase in job satisfaction with well written notes	5.00	0.00
Able to process more charts with good documentation	5.00	0.00
Estimate of efficiency increase due to good documentation	38%	42%