Methods: We used a grounded theory approach to perform a content analysis of student reflective narratives about inter-professional experiences during an EM clerkship. Using Kirkpatrick's expanded outcomes typology as a conceptual framework, experiences were coded for themes and learning impact for students. Methods of analysis included counting comments within themes and Kirkpatrick learning outcome categories as well as identifying exemplar quotes to illustrate major themes. Inter-rater reliability was calculated.

Results: Four major themes related to inter-professional experiences in emergency departments were identified in the analysis: 1) an understanding the roles, responsibilities, and expertise of team members, 2) an appreciation of the establishment of a climate of mutual respect, trust, and integrity in successful inter-professional teams, 3) a recognition of the importance of encouraging ideas and opinions from other health care team members, and 4) an awareness that teamwork achieves improved patient outcomes through a coordination of individual efforts within a team. Learners describe individual reaction's (66.8%) and modifications of attitudes or perceptions (65.3%) most commonly, but acquisition of knowledge or skills (20.5%) and behavioral change (12.3%) are also described. Nurses (59%), pharmacists (35.4%), emergency medicine technicians(EMT) (36.7%) and emergency medicine service(EMS) providers (33.3%) are the most commonly reported health care professionals in narratives.

Conclusions: Qualitative analysis of student reflective narratives about inter-professional experiences during an EM clerkship can be used to understand the range of inter-professional experiences occurring within emergency departments and can potentially be used to assess what students learn from these experiences.

46 Reflections of First Year Medical Students in the Emergency Department

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Background: The Initial Clinical Experience is an innovative course designed to give 1st-year medical students the opportunity to experience a variety of clinical settings early in their medical education. In the Emergency Department (ED), these students work with multiple professionals, including physicians, nurses, pharmacists, social workers, and PAs, to develop awareness and understanding of the complex interactions that create a viable healthcare model. Currently, the majority of IPE occurs by chance in the clinical setting.

Objectives: The aim of this study is to understand 1st-year medical students' experiences in the ED through reflective journaling.

Methods: Every other week students spent Â½ day in the ED actively observing a health professional and subsequently wrote reflections regarding their experience. The authors performed a qualitative analysis using grounded theory on the reflections to determine common themes.

Results: 17 reflections were coded by 17 1st year medical students. Thirty codes were identified with the most common themes being Interprofessional Practice (65%), Communication (71%), and Patient Family Centered Care (53%). One student wrote, "With so many medical professionals interacting with and obtaining information from patients, the quality of the patient's care is contingent on the discussion between [providers]," which is coded as interprofessional practice and communication.

Conclusions: Placing students in the ED early introduces students to Interprofessional Practice and the role of other health professions. Reflective journaling reveals students' experiences and views of healthcare roles. One limitation of this study is only 59% of the reflections were labeled as "reflective." This may be due to the phrasing of prompts or lack of understanding of being reflective. Comments were provided to students each week regarding how to make their reflections more reflective.

47 Resident Education on Misdiagnosis and Quality Assurance in Emergency Medicine (EM) Training Programs

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Background: Diagnostic errors occur in up to 12% of ED patients. In addition to patient harm, misdiagnosis is a leading source of medical malpractice claims. Current ACGME requirements call for resident participation in quality improvement and patient safety activities. However, the methods residency programs use to educate residents on these topics are unknown.

Objectives: To determine the prevalence and current methods used to educate EM residents on diagnostic errors, quality assurance (QA), malpractice, and risk management. We hypothesize there is much variation in education on these topics.

Methods: This was an email survey of EM residency programs. An 11-item questionnaire was emailed to EM program directors via the CORD listserv. Questions pertained to the prevalence and modalities of resident education on misdiagnosis, diagnostic errors, QA, and malpractice. Follow-up emails were sent to non-responders. Proportions and 95% CI were calculated.

Results: Of the 168 ACGME-accredited EM residency programs, 82 programs (49%) completed the questionnaire. The proportion of programs with formal, required didactics on

the topics is as follows: diagnostic errors/misdiagnosis 83% (95%CI 74-90), QA 88% (95% CI 81-95), malpractice and risk management 78% (95% CI 68-87), resident requirement to participate on departmental QA committee 90% (95% CI 84-96). There was no statistical difference in prevalence of formal education by program length. 52% (95% CI 42-63) of programs offer less than four hours per year of QA education. 62% (95% CI 51-72) of programs offer less than four hours per year of education on risk management. Of programs that offer a formal curriculum on diagnostic errors, the following modalities of teaching were reported: morbidity and mortality conference 94% (95% CI 88-99), lecture 74% (95% CI 62-84), small group discussions 44% (95% CI 32-56), simulation 41% (95% CI 28-54) and web-based modules 22% (95% CI 12-32).

Conclusions: The majority of programs include formal didactics on diagnostic errors, QA, and malpractice but there are few dedicated hours for these specific topics. A limitation of this study is the response rate. Given the growing focus on error reduction and QA in the clinical setting, an expanded and standardized approach to education on these topics may be beneficial in EM training programs.

48 Resident Reactions to Unannounced Standardized Patients in the ED

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Background: Communication and professionalism has a significant impact on patient outcomes and satisfaction and are also two of six ACGME defined core competencies, but evaluation in medical education is a challenge. The USMLE Step 2 CS is necessary for graduation in LCME accredited medical schools and uses standardized patients to evaluate these core competencies in medical students, but is limited by artificial environments and the Hawthorne effect. In the business world, these confounders are eliminated by the use of "mystery shoppers." The equivalent in medical education is the unannounced standardized patient (USP). In our residency program, videotaped USP encounters are currently used to assess empathy and interpersonal communication skills of EM1s. However, ethical considerations and resident reaction to the use of USPs in resident education is unknown.

Objectives: To determine overall resident reaction regarding the use of USP encounters in medical education.

Methods: This was a cross sectional survey of EM residents (N=46) at an urban community academic center with 120,000 patient visits per year. Residents signed consent to participate in a study using USPs. After initiation of the program, residents were asked to fill out an anonymous survey containing twelve questions regarding the use of USPs in the ED.

Results: A total of 39/46 (85%) EM residents completed the survey (23 males, 16 females; 14 EM1s, 10 EM2s, and 15 EM3s). Almost half (43%) of EM1s admitted to feeling pressured by peers and/or faculty to participate in the training. In addition, 8 (21%) of all residents surveyed were concerned that USP interactions in the ED would affect their reputation within the residency. The survey also revealed that 17 (44%) residents felt there was educational value to a USP encounters, 17 (44%) were indifferent, and 5 (12%) saw no educational value. Only 5 (12%) residents surveyed did not believe compassion and/or empathy could be taught to EM residents.

Conclusions: While many residents believed there was educational value in the use of USPs, some were concerned that their reputations within the residency would be affected. Clearly defining educational goals may help mitigate ethical concerns such as how the data will be used.

49 Retrospective Study to Explore the Potential Benefit of an ECMO Protocol in Our Emergency Department

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Background: Cardiac arrest is common condition treated in the Emergency Department (ED). Treatment options for this condition remain limited with poor survival rates despite multiple revisions made to advanced algorithms at our disposal. Most cardiac arrest patients are initially treated outside of a hospital setting, yet survival rates for these patients have remained at 8% for the past 30 years. However reports of survival to discharge after initiation of Extracorporeal Membrane Oxygenation (ECMO) range from 21-34%. Thus ECMO may have a role in improving survival rates for this patient population if initiated in the ED.

Objectives: Our institution sees a substantial number of cardiac arrests, as a result, we sought to explore the need for ECMO as a useful modality in cardiovascular rescue. The goal of this investigation was to establish a rationale for initiating a protocol for emergent provision of ECMO in our ED.

Methods: Three investigators conducted a retrospective cohort study of ED patients who had expired in the ED between January, 2003 and December, 2013. Electronic ED records were selected using a query of inclusion criteria consisting of patients ages 15 - 65, a diagnosis of cardiac arrest, and a disposition of "expired". The data were analyzed to determine the number of eligible patients by then using exclusion criteria comprised of signs of prolonged down time, severely impaired functional status or chronic illness, initial presentation of asystole, total arrest time over 60 minutes, and traumatic arrest.

Results: Our query identified 467 total patients in the specified time period that met inclusion criteria. A patient was considered eligible for ECMO if no exclusion criteria were met. A total of 80 patients out of the 467 (17.1%) were found to be eligible for ECMO. Patients meeting one or more