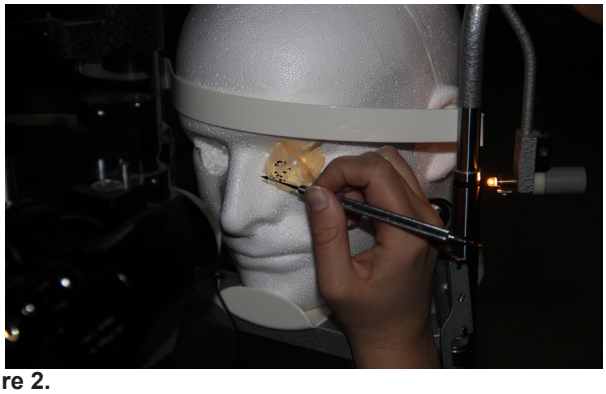

Figure 2.

28 ED Patient Safety Rounds as a Source for Quality and Patient Safety Education and Quality Improvement

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Background: Patient Safety Leadership Walk Roundsâ„¢ were first introduced at Partners Healthcare in January 2001 as a way to engage frontline staff, throughout the hospital, in patient safety, to show frontline staff that hospital quality and safety leadership is interested in what they have to say about improving the safety of patient care, and to support a culture of safety. These rounds also serve as a source of safety concerns that might not otherwise be captured in event reporting systems, complaint letters, or quality reviews. Quality and patient safety (QPS) rounds were not routinely performed in our emergency department (ED) until 2013 when the QPS leadership expanded. Now QPS rounds are held once monthly in the ED clinical areas.

Educational Objectives: With the emphasis on patient safety in Emergency Medicine (EM) education though the patient safety milestone and the focus of patient safety as one of the 6 areas evaluated in the ACGME Clinical Learning Environment Review, we sought to use ED safety rounds as a way to illustrate QPS terminology and process improvement.

Curricular Design: EM residents are asked to participate in EM patient safety rounds during their administrative rotation, as a member of the ED patient safety team, and during their clinical shifts as a frontline staff member. Rounds occur during huddles after staff introductions of name and role for the shift. ED frontline staff are asked to suggest ways to improve the safe care of patients, to vocalize problems that have compromised safety, discuss workarounds that may lead to errors, and voice other concerns for patient flow, boarding, and clinical care. A member of the QPS leadership catalogues these concerns and steps are taken to determine ways to address each problem or concern.

Impact/Effectiveness: This hands-on approach illustrates patient safety concepts. By participating as frontline staff, residents see how a culture of safety is fostered within the ED and see how QPS leaders in the ED administration are working to improve safety and quality in the ED while improving patient care. EM residents also use the list of problems identified to develop quality improvement projects.

29 Electronic Health Record Reports can be Utilized to Provide Data About Residents' Practice Habits

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Background: The ACGME requires that programs provide residents with data about practice habits. However, the 2014-2015 ACGME Resident Survey report shows that, on a national level, there is poor compliance with this requirement.

Educational Objectives: We sought to create a report within the electronic health record (EHR) that would provide residents with details on their practice habits in the emergency department (ED).

Curricular Design: In collaboration with our EHR analysts, we identified triggers within our EHR (Epic Systems; Verona, WI) to report numerous metrics, including: total number of patients seen (excluding patients signed-out to the provider), patient acuity, length of stay, treatment time, time to decision, number of laboratory and imaging tests ordered, time to first laboratory and imaging test ordered, number of procedures performed, and time to completion of charting. We then created a report in our electronic shift scheduling software to identify the number of hours worked by each resident so that the patients seen per hour metric could be calculated. We ran both reports from 7/1/2015 - 9/30/2015. The data was de-identified and divided by graduating class prior to dissemination (see Table 1 for an example of report data).

Impact/Effectiveness: In total, the 2016 ("PGY-3"), 2017 ("PGY-2"), and 2018 ("PGY-1") graduating classes had 15, 12, and 11 residents rotate through the ED during the study time period. PGY-3 residents saw 2.28 patients per hour in a supervisory role and 1.22 patients per hour as a primary medical provider. In addition to those metrics, PGY-3 residents saw an average of 0.22 critically ill patients per hour in the stabilization room. PGY-2 and PGY-1 residents saw 1.15 and 1.01 patients per hour as a primary medical providers, respectively.

We created a report within the Epic EHR to provide residents with information on their practice habits, as outlined by the ACGME. After several iterations of the report, we will analyze whether the report objectively or subjectively changes residents' practice habits, feelings towards the data that they are provided on their practice habits, and the results of the ACGME Resident Surveys.

Table 1. Example of Report Data.

Provider	Total Patients	Admit (%)	D/C (%)	Mean Acuity	Median LOS, min	Median Treatment Time, min	Median Decision Time, min
258	195	11%	89%	3.0	272	201	161
280	319	22%	90%	2.9	231	186	123
269	386	20%	90%	2.9	246	205	171
230	290	20%	91%	2.9	224	181	139
298	226	19%	95%	2.8	279	220	166
219	186	15%	94%	3.0	216	188	142
217	200	18%	85%	3.0	242	203	151
262	109	17%	90%	2.9	261	212	166
288	289	19%	91%	2.9	229	189	139
249	367	17%	94%	2.9	239	191	144
223	235	16%	95%	3.0	273	210	167
279	491	21%	95%	2.9	255	198	156
Overall	**3293**	**18%**	**92%**	**2.9**	**244** [IQR 162,366]	**196** [IQR 121,310]	**150** [IQR 93,239]

30 Evidence Based Medicine Longitudinal Track

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Background: Emergency medicine is one of the newest fields in healthcare and is constantly evolving. Paramount to this is the ability for emergency physicians to remain current with practice changing research. Residency training provides a basic framework of evidence-based medicine (EBM) however additional education and feedback are needed for one to become proficient. The purpose of this curriculum is to add additional training for interested residents that want to improve their ability to practice EBM principles. The curriculum will focus on how to read, analyze, interpret and apply primary literature to the clinical practice of emergency medicine.

Educational Objectives: The overall goal of the evidence based medicine track is for the resident to answer a clinical question and create a clinical practice guideline for implementation into the emergency department using primary literature. The clinical practice guideline will follow the structure and format laid out by the ACEP clinical policy development process. This final goal will be met by a series of objectives to complete as the resident progresses. These objectives will develop fundamentals of evidence based medicine, focusing specifically on how to analyze and interpret literature (types of studies, design, data analysis, test characteristics), determine if they should be implemented into daily practice (GRADE criteria, CEBM scoring), and how to write a summary recommendation based on the evidence (ACEP clinical policy).

Curricular Design: The track is designed to be a one-year longitudinal supplemental educational opportunity for residents in good academic standing with specific interest in EBM, and provides one clinical shift reduction per ED block. The track is broken down into specific objectives that include tasks to help prepare the resident for their final project. These include: i) understand and apply diagnostic test characteristics, ii) improve ability to critically analyze medical literature, iii) become proficient in RefWorks, iv) determine a clinical question and complete a clinical practice guideline. Each objective has a measurable competency to allow assessment of progress.

Impact/Effectiveness: This track will have a significant impact on resident academic skills training and help develop skills necessary to be a lifelong learner and teacher. Residents who complete this track will have the skills and confidence to interpret literature independently and use this in their daily practice to provide safe and effective therapies supported by literature. This track was implemented in the 2013 academic year and the first resident to complete the track developed a clinical guideline on age-adjusted d-dimer. The resident also developed and mentored all of the journal clubs, and facilitated faculty teaching of EBM principals at resident conference. The following year this resident was awarded a scholarship by the Emergency Medicine Foundation to attend the Emergency Medicine Basic Research Skills course hosted by ACEP. This academic year our second resident is participating in the track.

31 Excellence in Ultrasound Education: An Innovative Longitudinal Approach to Bedside Hands-on Ultrasound Teaching

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Background: In 2012 the ACGME included Emergency Ultrasound (EUS) as one of the 23 milestone competencies for graduates of an emergency medicine (EM) residency. Current ACEP EUS Guidelines (2008) stress the importance of emergency physician performed point-of-care ultrasound (POCUS) but do not detail how emergency medicine residencies should teach POCUS. In 2013, the CORD-AEUS consensus guidelines outlined key components of a residency POCUS curriculum and emphasized the importance of "active hands-on learning."

Educational Objectives: We sought to implement a longitudinal bedside hands-on curriculum to improve our current POCUS curriculum in light of the CORD-AEUS guidelines. Residents at our institution have an introductory POCUS course and an advanced POCUS curriculum integrated into our modular core lecture series, which include both didactics and hands-on scanning. Hands-on scanning for both components is primarily in the simulation setting. Our primary goal was to provide residents with protected time for scanning Emergency Department (ED) patients alongside EUS faculty members.

Curricular Design: We designed Excellence in