

had to remove from the bedside. Participants were scored on their performance of the critical actions on the checklist. Each resident's performance was compared to residents who had not yet received the training module.

**Impact:** This intervention is easily integrable into pre-existing simulation curricula. Preliminary data show 60% of participants have no prior firearms training. On a 5-point Likert scale, participants without prior firearms training reported low confidence in safely removing a firearm from the clinical care space (median 1, IQR 0), while those with prior training reported high confidence (median 5, IQR 0.75). Data collection is ongoing, so definitive conclusions on this intervention's effectiveness cannot yet be made, but participants receiving the intervention prior to simulation performed all 8 action items correctly, while control participants performed a median of 5 items correctly.

## 6 An Educational Curriculum for Healthcare Costs and Price Transparency. Is Training In Cost-Effectiveness Possible?

*Keel Coleman, Daniel Lareaux, Timothy Fortuna*

**Introduction/ Background:** Cost-effectiveness in healthcare has been stymied by lack of real-time costing data. The Cost Transparency Act has provided a platform from which educators may describe the expenses our patients incur as they utilize our healthcare system. This is new training and has an unfortunate dearth of formal study or literature.

**Educational Objectives:** Provide a framework of cost awareness for resident education learners in Emergency Medicine via the following aims: 1. Appreciate the variability of costing across payor groups 2. Understand how clinical decisions affect the financial health of patients seeking care in the ED 3. Perceive the underlying dysfunction of 'market-based' healthcare.

**Curricular Design:** Nine 30 min lectures, occurring once a month, were provided to a population of 36 Emergency Medicine Residents during their dedicated conference time. Following the ninth lecture, learners completed a survey with the following questions: Overall, how would you rate the course and was the course material useful? How clearly did your instructors explain the course material? Name one thing you learned in the course.

**Impact/Effectiveness:** Greater than 80% of responses to all questions rated the course as Excellent or Very Good. The expository item included answers with themes around: The cost of American healthcare. The lack of standardized pricing. Coding level effects on price. The Healthcare Cost Transparency Act has provided a platform from which curricula may be assembled that are well received by Emergency Medicine Learners. Our patients recognize that financial health is part of their global health picture. Further advancement in how to teach the cost of care is possible. The

next area of study is evaluating how this curriculum changes practice patterns.

## 7 Scoring Tools in Emergency Medicine: A Novel Video Lecture Series

*Nao Yoneda, Patrick Monahan, Anita Lui, Jonathan Siegal, Timothy Khowong, Saumil Parikh, Ameer Hassoun, Michael Chary, David Simon, Sheetal Sheth*

**Introduction/ Background:** Scoring tools such as the HEART score play an integral part in Emergency Medicine (EM) and are used daily by providers to aid in clinical decision-making. Evidence-based tools aim to provide concrete guidance to secure the safest disposition and management. Despite their ubiquity, clinicians early in training lack adequate exposure to utilize these tools properly and there is no formal training in how to rigorously apply these scoring tools. By creating a voice-over lecture series to educate clinicians on how to properly utilize these tools, we hope to promote the appropriate use of these tools in the clinical setting.

**Educational Objectives:** The objective of this innovation was to create an easy to follow, voiced over, PowerPoint lecture aimed at educating medical students and residents about commonly used clinical scoring tools. This activity can be used asynchronously or shared as a free, open-access medical education resource.

**Curricular Design:** Our group of EM educators created a voiced-over lecture series on 22 commonly used clinical scoring tools. Each lecture covered a scoring tool's derivation, validation, indications for use, sensitivity/specificity, and limitations. A 30-question quiz including relevant clinical scenarios was given before and after the lecture to assess the amount of information retained.

**Impact/Effectiveness:** This lecture series provides EM educators with a user-friendly educational tool to educate future providers about the benefits and limitations of scoring tools. The effectiveness was measured by a quiz administered before and after the lecture which showed an improvement in resident performance before ( $M = 55.9$ ,  $SD = 9.2$ ) and after the intervention ( $M = 82.2$ ,  $SD = 5.8$ ),  $t(8) = 6.5$ ,  $p < .001$ . A benefit was also demonstrated amongst fourth year medical student performance before ( $M = 56.3$ ,  $SD = 8.6$ ) and after the intervention ( $M = 76.7$ ,  $SD = 10.7$ ),  $t(8) = 8.5$ ,  $p < .001$ .

## 8 Beyond the Basics: A Novel Approach to Integrating a Social Determinants of Health Curriculum into an Emergency Medicine Course

*Nikkole Turgeon, Katie Dolbec, Florence On, Erica Lash, Emily Reed, Kateline Wallace, Adam Fortune, Katie Wells*

**Introduction/ Background:** There is a paucity of

literature on incorporating social determinants of health (SDH) training into undergraduate medical education within Emergency Medicine (EM) courses. We designed a novel SDH curriculum to address gaps and limitations of teaching SDH that goes beyond an introductory approach and challenges students to assess SDH and how to address them in clinical practice.

**Educational Objectives:** 1. Assess SDH, risk factors, and barriers to health care facing patients from diverse backgrounds. 2. Examine how social work consult services operate in the ED and how to identify appropriate referrals, resources, and treatment plans. 3. Examine and interpret health disparities’ impact on patients and develop potential solutions to reduce these disparities to improve health outcomes. 4. Analyze the experiences and lessons learned and use them to inform future patient interactions.

**Curricular Design:** The curriculum was developed by a workgroup that considered the following: scope, target learners, overall structure, and instructional and delivery methods. The curriculum consists of four components over the 4-week course including a SDH shift, small group case discussion, solutions-focused presentation, and written reflection. Finally, students complete an end-of-course survey that is quantitatively and qualitatively analyzed.

**Impact/Effectiveness:** Of all respondents, 92% indicated they would apply lessons learned from the curriculum. We posit that the lessons learned through the SDH curriculum can translate to improved patient care and health outcomes. We implemented changes such as reducing components of the curriculum and integrating social medicine concepts into existing sessions. Overall, social medicine integration into a core EM course is a replicable approach to experiential and collaborative exposure to the SDH that can improve the way future generations of physicians identify and address the social needs that affect their patients.

**Table 1.** Quantitative results for end-of-rotations social determinants of health survey questions.

Question/Statement	Yes	No			
Will you apply lessons learned from your Health Equity Experience to your future practice?	68 (82%)	6 (8%)			
	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
This course helped increase my understanding of how diversity, equity, and inclusion relate to the practice of medicine.	2 (3%)	-	12 (16%)	34 (46%)	28 (35%)
I had an opportunity to participate in the care of a variety of different patients in this course. Examples of variety include: different medical conditions, diverse cultures, ethnicities, socioeconomic backgrounds, sexual orientations, and belief systems.	-	-	4 (5%)	27 (36%)	43 (55%)
	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)
Rate the overall quality of the Health Equity Experience during your course (social determinants of health shift, small group experience, and large group discussion).	5 (7%)	15 (20%)	25 (34%)	18 (22%)	13 (16%)

**Table 2.** Thematic analysis of end-of-rotation social determinants of health narrative responses with additional exemplar quotes.

How can we improve the Health Equity Component of the Clerkship?		
Theme	Sub-theme	Exemplar Quotes
General Comments	Positive	I thought this part was great. Much more than I've had in any other rotation (clinical or non-clinical) thus far in med school. I was surprised by that, but very pleasantly surprised by how much I got out of it even in a short time.
		It was the best health equity clerkship course so far
	Negative	Remove it (SDH curriculum), we do this during family med rotation, so it is repetitive.
	Neutral	I really thought it was great and can't think of any improvements to be made at this time.
Course Design	Structure of patient interviews	Encourage asking the SDH questions to patients the student has already been building a relationship with. It's so awkward going up to a random patient or asking the attending on if there are any patients with SDH barriers.
		The questionnaire can be improved - it is very objective and the whole concept of SDH is subjective that extends beyond simple questions like "do you have housing/food"
	Structure of SDH shift	Work with social work when they are consulted when it is a patient that we saw during a normal shift so that we can better understand when social work is needed and how it is incorporated into better health care for our patient. It would make integrating the medicine and the social pieces more powerful and tangible.
	Reduce components	The SDH curriculum is great and a fundamental aspect of what we should be learning as EM students. That being said, it was more work than expected, and tough during a stressful time of the year to have several added requirements. A panel where peers can talk thoughtfully about their experiences (vs a project and essay) would have been less stressful and more fulfilling.
	Variability of SDH shift	I think shadowing the social workers is a little challenging. Often they are on the phone calling consults or are in meetings and there is little engagement for us. I think it was helpful to see all that they do and how they are integrated into patient care in the ED.
	Remove SDH shift	I don't think there needs to be an extra SDH shift. I think it would be sufficient to provide students with the questionnaire and seek patients out during their shifts.

## 9 Can Simulation be Used as a Tool to Assess Senior Resident Competence in Supervising Junior Residents Placing Central Lines

Jessica Parsons, Deborah Pierce

**Introduction/ Background:** ACGME program requirements state that senior residents should supervise junior residents. Historically, once residents are deemed competent in a skill, they are permitted to supervise that skill. However, the ability to supervise may not be the same as the ability to perform a skill.

**Educational Objective:** Our goal was to develop a tool to assess a senior resident’s competence to supervise a junior resident placing a central line.

**Curricular Design:** Sixty residents were assigned to teams consisting of each PGY level. The SIM scenario involved managing a post-cardiac arrest patient who required a central line. During the procedure, the patient developed hypoxia due to an iatrogenic pneumothorax.