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Development of an educational experience for medical students on coping with medical errors in residency and beyond

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4 Preparing for Discharge: A Workshop on Communicating Diagnostic Uncertainty

Maria Poluch, Jordan Feingold-Link, Nethra Ankam, Jared Kilpatrick, Danielle McCarthy, Kristin Rising, Dimitrios Papanagnou

Learning Objectives: Demonstrate a workshop designed to teach third year medical students how to communicate diagnostic uncertainty.

Background: Diagnostic uncertainty abounds in medicine. Effectively communicating that uncertainty is critical to high-quality patient care. There is a gap in training preparing medical students for communicating diagnostic uncertainty. The Uncertainty Communication Checklist (UCC) is a framework to effectively communicate diagnostic uncertainty to emergency department patients at discharge.

Educational Objectives: We developed a workshop to address a curricular gap in preparing medical students to communicate diagnostic uncertainty to patients. Its objectives were to introduce learners to diagnostic uncertainty, discuss the importance of effective communication during times of diagnostic uncertainty, describe key steps for effectively communicating uncertainty, and practice communication through peer role-play.

Curricular Design: We designed a workshop leveraging the UCC and role-play scenarios for third-year medical students. The virtual workshop was conducted at the conclusion of their core clerkships. Pework included reflection prompts and an interactive online module. The workshop began with a didactic lecture to reinforce these materials. Students completed a peer role-play in which a provider must discharge a patient from the Emergency Department with an uncertain diagnosis. The session concluded with small group faculty facilitated debrief sessions.

Impact: Anonymous post-session survey data (76% response rate; 202/265) indicated that most (82%; 152/185) students felt more comfortable with communicating diagnostic uncertainty after the workshop. A majority (83%; 166/201) indicated it was useful, and most (81%; 149/184) felt it should be included in the curriculum in the future. Further studies are needed to identify students' comprehension and application of uncertainty communication training.

5 Transitions to Life After Residency: A Curriculum for Senior Emergency Medicine Residents

Byron Parker, Lauren Querin

Learning Objectives: To understand the value of a senior EM resident curriculum that introduces knowledge and

skills for successful navigation through the life and career transitions that occur during the final year of training.

Introduction: The final year of residency is filled with refining clinical skill and knowledge, but also with anticipation of professional and personal changes as residents prepare for the transition to life as an attending. There is existing literature to demonstrate a lack of resident familiarity in several personal and professional skills necessary to navigate life after residency, but there is sparse literature on curricula dedicated to guiding trainees in making a successful transition.

Educational Objectives: To deliver an aptly timed curriculum to senior EM residents with the goal of introducing desired knowledge and skills for successful navigation through the life and career transitions that occur during the final year of training.

Curricular Design: The design followed Kern's steps of curriculum development. A targeted needs assessment was administered to recent alumni and identified 8 key topics: contract negotiation, supervising midlevel providers, debt repayment, personal finance, critical care billing, documentation, insurance, home buying. An abbreviated pilot was delivered in May 2021, which promoted modifications in timing of content delivery. The curriculum is now delivered longitudinally with sessions timed in conjunction with when residents will be able to apply the content. Sessions include brief interactive lectures followed by group discussions. They are given by faculty/alumni with interest/expertise in the content area.

Impact/Effectiveness: Preliminary data from the pilot was collected via pre/post curricular surveys and demonstrated a post-curricular improvement in >72% of perceived proficiency measures. Success in life as an attending is not solely built on medical knowledge and clinical ability, but also on practical life skills that are often overlooked during residency. We encourage residency program educators to incorporate dedicated time towards teaching these skills as a part of training residents for independent practice.

6 Development of an educational experience for medical students on coping with medical errors in residency and beyond

Hai Le, Sharon Bord, Julianna Jung

Learning Objectives: To design an educational experience for senior medical students that addresses coping with medical errors.

Introduction: Navigating and coping with medical errors, which are inevitable realities of clinical practice, is an important physician competency. While medical students and residents recognize the importance of this topic, medical training programs vary substantially in their approach to teaching about medical error, and many offer no formal instruction in this topic.

Educational Objective: To design an educational experience for senior medical students that addresses coping with medical errors.

Curricular Design: We designed and implemented an educational experience within the established fourth-year capstone course at our institution, which is a required 2-week curriculum that prepares 4th year students for the transition to internship. After a brief lecture on medical errors, students participated in a standardized patient encounter in which they were required to disclose a medical error to the spouse of a critically ill patient. The error in the scenario was administration of an incorrect antibiotic leading to anaphylaxis requiring intubation. The standardized patients were instructed to portray strong emotions appropriate to the situation, including anger, shock, and grief, requiring students to navigate the error disclosure process in a realistic way. Afterwards, students participated in group debriefing focused on the challenges of disclosing medical errors and the impact of error on professional identity. Student feedback on the curriculum was obtained using a post-course survey.

Impact: This novel experience addresses an under-recognized but important topic in medical education. Among participating students, 94% agreed that medical error is an important topic, and 92% felt more comfortable discussing medical errors. Formal instruction in coping with medical errors may help mitigate the adverse psychological impact of making medical errors in clinical practice, and better prepare students for the transition to residency and beyond.

7 The House Cup Challenge: A Gamified Curriculum for Emergency Medicine Residents

Marion-Vincent Mempin, Brian Smith, Suji Cha, Jessie Chen

Learning Objectives: Our goal was to create a bespoke annual competition that incentivizes residents' participation both during conference and outside scholarly activities as well as foster camaraderie between residents and boost morale of the residency program.

Introduction: Current emergency medicine (EM) residents have different learning styles and benefit from a more immersive educational strategy over classic, lecture-based curricula.^{1,2,3,4} Integrating gamification into a didactic curriculum has been shown to boost learners' participation.² An annual competition that incentivises residents' participation in conference and scholarly activities can motivate educators to create more interactive learning tools and encourage resident participation.

Objectives: Our goal was to create an annual competition in which residents earn points based on various competitions and completion of scholarly activities. We hypothesize that

our novel competition will motivate residents to participate in conference activities and scholarly activities, as well as foster camaraderie between residents and improve overall morale.

Curricular Design: Residents were randomly sorted into four groups at the beginning of the academic year with an equal distribution of PGY levels. Residents had opportunities to earn points for their teams through a variety of predetermined activities including individual and team-based competitions during conferences and completion of scholarly activities. Points could also be deducted for missed deadlines. The challenge spanned the academic year and the group with the highest points was awarded prizes.

Impact/Effectiveness: Our House Cup Challenge has stimulated resident participation, fostered camaraderie, and improved residency morale. Residents completed an anonymous Likert scale survey to assess the impact of the competition. 73% report that the challenge boosted overall morale and 70% report that it helped foster camaraderie with co-residents. In terms of education, 62% of the residency were incentivized to participate in activities in which they otherwise would not have participated and 66% would want to participate again next year. This competition can be easily integrated into any EM residency curriculum.

8 Battle of the Classes: Experiential Learning Through the Gamification of Conference

William Chan, Kent Li, David Simon, Anika Nichlany, Richard Shin, Anita Lui, Kallie Combs, Akshay Elagandhala

Learning Objectives: 1) Improve active engagement of learners through gamification. 2) Prepare learners to appropriately respond to mass casualty incidents. 3) Understand the management of multiple disease processes secondary to trauma and environmental factors.

Background: With traditional models of teaching falling out of favor, there is increased evidence supporting hands-on and experiential learning models. Gamification is a dynamic avenue that stimulates learner engagement by incorporating elements of game design to non-game contexts. However, its utility as a learning tool has not been formally examined as part of a residency curriculum. We aim to augment existing learning models by implementing gamification in a SimWars-based conference curriculum.

Educational Objectives: 1) Improve active engagement of learners through gamification. 2) Prepare learners to appropriately respond to mass casualty incidents. 3) Understand the management of multiple disease processes secondary to trauma and environmental factors.

Curricular Design: Learners (EM residents) were divided into three teams corresponding to their years of post-graduate training. Each team participated in treating a