patients for recruitment for ongoing mentor-initiated ED research projects. Remaining time was spent on independent student project work. Presentation to faculty and program evaluation occurred in week 10. Scholarly output included one abstract submitted for publication per student. Program evaluation by students reflected a uniform impression that course material and mentorship were each excellent (100%, n = 5). Interest in pursuing academic EM as a career was identified by all students. Faculty researchers rated the program as very effective (80%, n = 4) or somewhat effective (20%, n = 1) in terms of enhancing productivity and scholarly output. **Conclusion:** The STAR-EM program provides a transferable model for other academic departments seeking to foster the development of future clinician investigators and enhance ED research culture. Program challenges included delays in REB approval for student projects and engaging recalcitrant staff to participate in research.

Keywords: innovations in EM education, medical education

#### LO<sub>12</sub>

## ClerkCast: a novel online free open access emergency medicine curriculum for medical students

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Innovation Concept: Canadian medical students completing their Emergency Medicine (EM) clerkship rotations must develop approaches to undifferentiated patients. Increasingly used in postgraduate EM education, Open Educational Resources (OERs) are a convenient and flexible solution to meeting medical student educational needs on their EM rotation. We hoped to supplement Canadian medical student EM education through the development of 'ClerkCast', a novel OER and podcast-based curriculum on CanadiE-M.org. Methods: We utilized the Kern Six Step approach to curriculum development for 'ClerkCast'. A general needs assessment involved a review of available OERs and identified a lack of effective EM OERs specific for medical students. A specific online needs assessment was used to determine which EM topics required further education for medical students. The survey was shared directly with key Canadian medical student and undergraduate medical educator stakeholder groups, and distributed globally through the CanadiEM social media networks. Results of the needs assessment highlighted shared perceptions of educational needs for medical students, with an emphasis on increased need for education on critical care and common EM presentations. We used the topics determined to be highest priority for the development of our first ten episodes of 'ClerkCast'. Curriculum, Tool or Material: Podcast episodes are released from CanadiEM biweekly. Episodes are 30 to 45 min in length, and focus on cognitive approaches to a common EM presentation for medical students. Content is anchored on medical student interactions with a staff or resident EM co-host. Podcasts are supplemented by infographics and blog posts highlighting the key points from each episode. Learners are also encouraged to interact with the content through review quizzes on a provided question bank. Quality assurance of the content is provided by physician co-hosts who review episode scripts both prior to recording. Post-production feedback is elicited via comments on the curriculum's host website, CanadiEM.org, and through direct email correspondence to the ClerkCast address. Conclusion: With an ever increasing number of OERs in EM and critical care, the systematic development of new resources is important to avoid redundancies in content and medium while also addressing unmet learner needs. We describe the successful use of the Kern

Six Steps for curriculum development for the creation of our novel EM OER for Canadian medical students, 'ClerkCast'.

**Keywords:** free open access medical education, innovations in EM education, medical students

#### LO13

## Development of a national, standardized simulation case template

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Innovation Concept: A major barrier to the development of a national simulation case repository and multi-site simulation research is the lack of a standardized national case template. This issue was recently identified as a priority research topic for Canadian simulation based education (SBE) research in emergency medicine (EM). We partnered with the EM Simulation Education Researchers Collaborative (EM-SERC) to develop a national simulation template. Methods: The EM Sim Cases template was chosen as a starting point for the consensus process. We generated feedback on the template using a three-phase modified nominal group technique. Members of the EM-SERC mailing list were consulted, which included 20 EM simulation educators from every Canadian medical school except Northern Ontario School of Medicine and Memorial University. When comments conflicted, the sentiment with more comments in favour was incorporated. Curriculum, Tool or Material: In phase one we sought free-text feedback on the EM Sim Cases template via email. We received 65 comments from 11 respondents. An inductive thematic analysis identified four major themes (formatting, objectives, debriefing, and assessment tools). In phase two we sought free-text feedback on the revised template via email. A second thematic analysis on 40 comments from 12 respondents identified three broad themes (formatting, objectives, and debriefing). In phase three we sought feedback on the penultimate template via focus groups with simulation educators and technologists at multiple Canadian universities. This phase generated 98 specific comments which were grouped according to the section of the template being discussed and used to develop the final template (posted on emsimcases.com). Conclusion: We describe a national consensus-building process which resulted in a simulation case template endorsed by simulation educators from across Canada. This template has the potential to: 1. Reduce the replication of effort across sites by facilitating the sharing of simulation cases. 2. Enable national collaboration on the development of both simulation cases and curricula. 3. Facilitate multi centre simulation-based research by removing confounders related to the local adoption of an unfamiliar case template. This could improve the rigour and validity of these studies by reducing inter-site variability. 4. Increase the validity of any simulation scenarios developed for use in national high-stakes assessment. Keywords: innovations in EM education, medical education, simulation

### LO14

# Interdepartmental program to improve outcomes for acute heart failure patients seen in the emergency department

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