from peers and facilitators. Two-weeks later, participants brought their completed articles for peer and expert review before submitting their final article. **Conclusion:** The innovation bolstered resident physician confidence in advocacy through the popular press, and provided demonstrable skills in opinion writing. Participants felt challenged to develop compelling narratives and differentiate this form of advocacy communication from academic writing or prior media training. Participants valued the workshop as a voluntary component of residency education led by peer experts. Through their writing, residents demonstrated an understanding of structural factors that impact patient health and health systems. Future engagement as physician advocates may be tempered by fears of professional repercussions for public engagement; the impact of physician advocacy on population health outcomes is not yet known.

Keywords: advocacy, innovations in EM education

MP27

Using a massive online needs assessment to guide the evolution of the EM Sim Cases website

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Innovation Concept: EM Sim Cases is an innovative, open-access website that was created in 2015 to publish medical simulation resources including standardized, peer-reviewed simulation cases. Herein we describe our interim analysis. **Methods:** We performed a massive online needs assessment using a methodology previously described by Chan et. al. to determine how we can shape EM Sim Cases to meet the needs of learners and educators who use it. We engaged with simulation experts from the Emergency Medicine Simulation Education Research Collaborative to design a Google Forms survey using best practices in survey design. We distributed the survey to our target community of practice via Twitter, email, and a blog post published on emsimcases.com. **Curriculum, Tool, or Material:** We received 81 responses from simulation educators representing 8 medical specialties and 13 countries. Most survey respondents identified themselves as staff physicians (n = 44) and specialized in emergency medicine (n = 39). They had 0-21+ years of experience. 37% of respondents (n = 30) stated that material from EM Sim Cases makes up 25% or more of their simulation curriculum. Several respondents noted that using this content made them feel more confident and more current. Respondents praised EM Sim Cases for a well-organized case format, the proper level of detail, consistency between case designs, and the wide variety of cases. Suggested improvements included an opportunity to directly comment on cases and more cases in pediatric, rural, and advanced airway management situations. Suggestions were made to improve the navigability of the website. Respondents wanted to see additional blog content on debriefing strategies and self-made task/skill trainers. **Conclusion:** EM Sim Cases is a novel, free open-access simulation resource. Using a massive online needs assessment we were able to determine future directions including case topics, website reorganization, and educational material. We were also able to capture how impactful a resource like this can be to clinical and educational practice outside of the simulation setting.

Keywords: innovations in EM education, needs assessment, simulation

MP28

Development and validation of a novel three-dimensional printed thorax model simulator for the simulation-based training of tube thoracostomy

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Innovation Concept: High-acuity, low-occurrence (HALO) procedures require skilled performance as they treat life-threatening conditions and are associated with significant morbidity when performed incorrectly. Simulation has proven useful for deliberate practice in a low stake setting. Tube thoracostomy is amendable to this approach. Commercially available trainers exist but often have limited realism and are prohibitively expensive particularly to non-academic centers. Three-dimensional (3D) printing produces models suitable for simulation, but no current simulator has been developed and validated for tube thoracostomy. The aim of this study was to develop such, a 3D-printed low-fidelity simulator validated for the simulation-based instruction of tube thoracostomy. **Methods:** The development of the simulator followed an iterative design cycle with collaboration between a design team and an emergency medicine expert. Its validity (face and content) was tested through hands-on practice and surveys completed by 15 acute-care practitioners. Participants performed the procedure on the simulator and then provided feedback through a mixed quantitative/qualitative product evaluation survey on appearance, realism (face validity) and value in procedural training (content validity). Mean values for overall appearance and content validity as a training tool were 4/5 and 4.3/5 respectively. All respondents felt the model was a useful adjunct. All but one stated it was a good replacement for pre-existing trainers. **Curriculum, Tool, or Material:** The model was initially printed in three parts using an Ultimaker 3 and Axiom Airwolf Dual 3D-printer. The ribcage was created using polylactic acid with polyvinyl alcohol support material. Printed sections were bonded using glue at interfaces requiring no flexibility. Flexible joints were made of varying amounts of thermoplastic polyurethane and thermoplastic elastomer. Skin overlay for the whole model was created with a cut out area for replaceable sections that subjects would incise to insert the chest tube. Skin was casted using platinum cured silicone in a 3D-printed mold. Total cost of all materials was roughly 80 CAD. **Conclusion:** The simulator was found to be a useful adjunct for the simulation-based practice of tube thoracostomy. As well, users found the model anatomically realistic and avoided high-cost and ethical issues. Further research will focus on optimization based on feedback and development into a multi-functional simulator for other HALO procedures.

Keywords: simulation-based training, three-dimensional printing, innovations in EM education

MP29

Using the Calgary audit and feedback framework to get the most out of physician practice reports

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Innovation Concept: The Calgary Audit and Feedback Framework (CAFF) is an innovative tool developed by the Physician Learning Program (PLP). By addressing four key factors –relationships, question choice, data visualization, and facilitation – CAFF addresses common barriers to physicians receiving their practice data. The goal of this study is to assess whether CAFF-facilitated physician