Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

EMF

111 Exploration of Uncertainty Scale Use in Patients With Potential Acute Coronary Syndrome

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Study Objectives: Patients seeking care in the emergency department (ED) identify fear related to ongoing symptoms and uncertainty about symptom significance as common drivers of the decision to seek care. These findings resulted in development of the Uncertainty Scale (U-Scale) to quantify patient uncertainty related to symptoms during an acute care encounter. In prior work, psychometric testing of the 30-item U-Scale demonstrated content validity, high internal consistency, reliability, and evidence for concurrent validity. The primary goal of this project is to assess whether U-Scale scores change over the course of a hospital stay in patients presenting to the ED with symptoms concerning for acute coronary syndrome. Additional goals include exploration of the extent to which U-Scale scores change over the course of patients' hospital stays and the impact of factors such as additional testing or cardiology consultation have on changes in U-Scale scores.

Study Design/Methods: This is a prospective observational cohort study in which we enrolled patients age ≥40 years who presented to the ED with symptoms concerning for acute coronary syndrome (eg, chest pain, shortness of breath, dizziness), had a troponin order placed by the treating physician, and were able and willing to provide informed consent. Subjects complete surveys at two time points. The first (baseline) survey is completed during ED triage, prior to communication of any results of ED work-up. The second survey is completed at the time of ED disposition, after patients have received results of their ED work-up. Surveys include the 30-item U-Scale and the six-item short-form of the State Trait Anxiety Index (STAI). U-Scale responses to the 30-item questionnaire are scored 30-150, with higher scores indicating greater uncertainty. Target enrollment is 150 subjects, allowing for 90% power to detect a mean total U-Scale score change from baseline of at least 5 points.

Results: In the preliminary cohort, there were 39 subjects enrolled with average age of 64 years, 62% female (n = 24), and a median HEART score of three. Thirty-two subjects completed the baseline and ED disposition surveys, of whom three (9%) were admitted to the hospital, six (19%) were admitted to the observation unit, and 22 (69%) were discharged from the ED. The average U-Scale score decreased from 78.6 (SD 17.3) for baseline surveys to 71.0 (SD 17.9) for ED disposition surveys ($p = 0.002$).

Conclusion: In this preliminary cohort of patients, we documented a significant reduction in U-Scale scores over the course of ED stay for patients with symptoms concerning for acute coronary syndrome. While these results are preliminary, they suggest that U-Scale scores may have utility in documenting the impact of various acute care interventions (eg education, testing, consults) on patient uncertainty. Final study findings will provide valuable insight into the utility of the U-Scale as an outcome measure for interventions focused on improving patient-centered communication and other care processes, while also providing important data regarding levels of uncertainty among patients presenting to the ED with symptoms concerning for acute coronary syndrome.

No, authors do not have interests to disclose

112 Future Uses of Telesimulation: National Survey of Emergency Medicine Residency Simulation Directors

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Study Objective: The COVID-19 pandemic accelerated the need for virtual learning opportunities including telesimulation. Many Emergency medicine (EM) simulation directors were forced to halt their in-person simulation curriculum and adapt to telesimulation, but specifics on their utilization practices and plans for future use is unknown. We sought to describe the patterns of telesimulation usage in recent times and its anticipated utility in medical education moving forward.

Methods: We developed a confidential, Web-based survey after literature review, using survey research best practices. The survey consisted of multiple choice and free response items pertaining to use of telesimulation before, during, and after in-person learning restrictions due to COVID-19. The survey was piloted prior to use and disseminated to emergency medicine simulation directors in January-February 2022. Programs were identified via the EMRA Match Web site and simulation director's contact information was obtained via the residency program's Web site if available. When not available on the Web site, contact information was obtained by emailing the program coordinator and/or program director.

Results: Contact information was obtained for 139 residency simulation directors. Survey response rate was 68% (94/139), with 3 participants opting out of the survey, leaving 91 responses. Seventy percent of respondents were from PGY 1-3 programs and 30% from PGY 1-4 programs. During in-person learning restrictions, 62% (56/91) of programs used some form of telesimulation. Assuming all in-person education restrictions lifted, 38% (34/90) of respondents plan to use telesimulation in some capacity in their curricula, compared to 9% (8/91) who reported they were using telesimulation prior to the pandemic. Most who plan to use telesimulation in the future plan to integrate it with their in-person simulation curricula, using telesimulation for 25% of the time of less (30/34), with only few planning to use telesimulation for more than 25% of their simulation curriculum (4/34). While many different types of simulation cases and activities were trialed using telesimulation, the majority of survey respondents that plan to continue using telesimulation plan to use it for medical knowledge (76%, 26/34) and communication/teamwork focused cases (68%, 23/34), rather than for procedure focused cases (21%, 7/34) or dedicated procedure training (15%, 5/34).

Conclusion: Despite relatively low use of telesimulation in emergency medicine residencies prior to the COVID-19 pandemic, experience using telesimulation during the pandemic has led to an increased number of residency programs who plan to incorporate it into their simulation curricula. This plan for continued use opens opportunities for further innovation and scholarship within this area of simulation education.

Table: Survey Results

EM residency program use of telesimulation	
Prior to COVID-19 pandemic	9% Yes (8/91) 91% No (83/91)
During in-person learning restrictions	62% Yes (56/91) 38% No (35/91)
Planned use after in-person restrictions lifted	38% Yes (34/90) 62% No (56/90)
Percent of future simulation curriculum involving telesimulation for those who plan to continue using telesimulation	
1-25% of the time	88% (30/34)
26-50% of the time	9% (3/34)
51-75% of the time	3% (1/34)
76-100% of the time	0% (0/34)
Types of future telesimulation activities for those who plan to continue using telesimulation	
Medical knowledge focused cases	76% (26/34)
Communication/teamwork focused cases	68% (23/34)
Procedure focused cases	21% (7/34)
Dedicated procedure training	15% (5/34)

No, authors do not have interests to disclose

113 A Novel Video Laryngoscope Device (IVOS Boss G4) for Minimizing Aspiration Events

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Study Objective: Airway secretions and massive emesis during video guided intubation can limit visibility and compromise the health of a patient. We developed a new device, the IVOS Boss G4, for video assisted laryngoscope intubation that decreases aspiration risks by means of built-in suction and air flow. To test this claim, we compared the speed and efficacy of intubation of our device vs. current methods under simulated aspiration conditions.

Methods: This prospective study evaluated Certified Registered Nurse Anesthetists (n=9) performing video assisted laryngoscope intubation under two conditions with