Introduction: Hospital shootings are rare events that pose extreme and immediate risk to staff, patients, and visitors. In 2015, the Ontario Hospital Association mandated all hospitals devise an armed assailant Code Silver protocol, an alert issued to mitigate risk and manage casualties. We describe the design and implementation of ASSIST (Active Shooter Simulation In-Situ Training), an institutional, full-scale hybrid simulation exercise to test hospital-wide response and readiness for an active shooter event, and identify latent safety threats (LSTs) related to the high-stakes alert and transport of internal trauma patients.

Methods: A hospital-wide in-situ simulation was conducted at a Level I trauma centre in downtown Toronto. The two-hour exercise tested a draft Code Silver policy created by the hospital’s disaster planning committee, to identify missing elements and challenges with protocol implementation. The scenario consisted of a shooting during a hospital meeting with three casualties: a manikin with life-threatening head and abdomen gunshot wounds (GSWs), a standardized patient (SP) with hypotension from an abdominal GSW, and a second SP with minor injuries and significant psychological distress. The exercise piloted the use of a novel emergency department (ED)-based medical evacuation team to transport internal victims to the trauma bay. The on-call trauma team provided medical care. Ethnographic observation of response by municipal police, hospital security, logistics and medical personnel was completed. LSTs were evaluated and categorized using video framework analysis. Feasibility was measured through debriefings and impact on ED workflow.

Results: Seventy-six multidisciplinary medical and logistical staff and learners participated in this exercise. Using a framework analysis, the following LSTs were identified: 1) Significant communication difficulties within the shooting area, 2) Safe access and transport for internal casualties, 3) Difficulty accessing hospital resources (blood bank) 4) Challenges coordinating response with external agencies (police, EMS) and 5) Delay in setting up an off-site command centre.

Conclusion: In situ simulation represents a novel approach to the development of Code Silver alert processes. Findings from ethnographic observations and a video-based analysis form a framework to address safety, logistical and medical response considerations.

Keyword: disaster preparedness, code silver, in situ simulation

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Québec emergency physicians propose priority solutions to improve rural emergency care

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Introduction: In the province of Québec, roughly 20% of the population lives in rural areas. Rural emergency departments (EDs) face different challenges than their urban counterparts. Yet, few studies have sought to understand these challenges. This study aims to survey Québec’s emergency physicians to: 1) identify problems specific to rural EDs, 2) find solutions for improving accessibility and quality of care offered in rural regions and, 3) rank solutions in order of priority. These results will allow data triangulation with other of our studies that seek to identify challenges faced by rural EDs and potential solutions.

Methods: During the 2016 annual conference of the Québec Emergency Physicians’ Association, we asked physicians and residents (including those from urban EDs), to complete a survey about the challenges faced by rural EDs. The survey contained two sections. The first took the form of open-ended questions in which respondents could write three challenges about accessibility and quality of care in rural EDs (objective 1) and three solutions to address these challenges (objective 2). The second section listed 11 potential solutions identified in our previous study. The solutions were ranked based on their priority level on a five-point Likert scale that ranged from “not a priority” to “an absolute priority” (objective 3). We added the total number of points for each solution and produced a ranking list.

Results: Ninety-one physicians out of the 417 at the conference completed the survey; 58% came from urban EDs and 42% from rural EDs. Open-ended questions suggest that access to specialists and interfacility transfers are the principal challenges faced by rural EDs. The top five solutions identified as the highest priorities were: 1) care protocols, 2) improvement of interfacility transfers, 3) training with simulators, 4) targeted ultrasound and, 5) implementation of staff retention and recruitment strategies.

Conclusion: This study is relevant and useful as roughly a quarter of attendants at the conference spontaneously volunteered to help identify and prioritize solutions to foster the accessibility and quality of care in rural EDs. Furthermore, it represents a stepping stone for our recently-launched study.