

result in more efficient and accurate global comparison. On a smaller scale, defining terms in publications and reports would begin facilitating this process.

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Comparison of Injury Epidemiology and Treatments by Gender Among Persons Seeking Emergent Care in Kigali, Rwanda

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Introduction: Variations in the incidence and patterns of injuries exist between genders which may impact treatments and outcomes. The study aimed to describe the epidemiology, treatments, and outcomes based on the gender of persons presenting with injuries to an Emergency Department (ED) in Kigali, Rwanda.

Method: This was a secondary analysis of a prospective cross-sectional study conducted in January–June 2021 at the Centre Hospitalier Universitaire de Kigali ED. Descriptive statistics were performed and variable comparisons based on binary gender self-designation (male or female) were conducted.

Results: A total of 601 patients were included in the analysis of whom 25.6% were female and 74.4% were male. Gender differences were found in the mechanism of injury with females more likely to be injured via falls (43.5% versus 23.0%, $p=0.001$), while males were more likely to be in a road traffic accident (52.6% versus 39.6%, $p=0.006$), have stab and/or laceration (9.0% versus 2.0%, $p=0.004$) or have been assaulted (6.9% versus 2.6%, $p=0.047$). Injury severity was not significantly different between genders based on the median Kampala Trauma Score and presence of triage hypotension. For treatments females were more likely to have been transported by prehospital services (87.7% versus 72.9%, $p=0.001$), but were less likely to received acute ED treatments of intubation, wound care, tourniquets, blood products, thoracostomy and point-of-care ultrasound during the first six hours of care (67.5% versus 78.1%, $p=0.009$). Hospital admission was significantly greater among females as compared to males, (31.2% versus 41.8%, $p=0.019$) but no difference in mortality was observed (2.0% versus 1.3%, $p=0.568$).

Conclusion: This study provides data on differences in epidemiologic and care characteristics between males and females presenting for emergency injury care in Rwanda. These findings can inform future research and help the development of gender-centered healthcare delivery in Rwanda and other similar contexts.

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Crisis Collaboration Exercises: Are They Useful?

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Introduction: Crisis collaboration exercises are perceived as developing and testing cross-sectoral team integration, preparedness efforts, and response. However, the general problem is that crisis collaboration exercises may tend to produce results with limited usefulness in actual crisis work. The purpose of this quantitative, non-experimental, survey-based study was to examine to what extent there was a statistically significant relationship between participation in Norwegian maritime crisis collaboration exercises and the perceived levels of learning and usefulness in an actual crisis. The scope was limited to relevant public, military, and non-governmental exercise participants.

Method: Surveys were electronically distributed among participants in three 2016 Norwegian maritime crisis collaboration exercises. The data collection instrument was the Collaboration, Learning, and Utility scale (Berlin & Carlström, 2015). The CLU-Scale is specially designed to measure collaboration exercise participants' perceived levels of learning and utility. The scope was limited to relevant public and non-governmental exercise participants including health, law enforcement, and military stakeholders.

The effects of collaboration, learning, and usefulness were tested in two bivariate regression analyses, where the first tested the relationship between collaboration and learning, and the second tested the relationship between learning and usefulness. To measure the linear dependence between the variables, Pearson's r was calculated. The coefficients of determination (r^2) were calculated to determine what proportions of the variance in the dependent variables could be considered predictable from the independent variables.

Results: The joint collaborative characteristics predicted 27% ($r^2 = 0.27$) of the learning variance, which meant that the remaining 73% of the predicted variance was unaccounted for. The perceived learning items predicted 34% ($r^2 = 0.34$) of the usefulness variance.

Conclusion: This study found a moderately strong statistically significant relationship between participation in Norwegian maritime crisis collaboration exercises and perceived levels of learning and usefulness. More focus on collaboration learning techniques in exercise planning and evaluation is recommended.

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Hemipelvectomy following Trauma: Burden less Identified. A Ten-year Experience from the Level-1 Trauma Center

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Introduction: Hemipelvectomy occurs seldom, yet it is a serious injury. Hemipelvectomy following trauma is associated with

high incidence of morbidity and mortality. Successful management requires early recognition with a multi-speciality approach and meticulous surgical technique.

Method: Retrospective data from hospital records of the Level-1 Trauma Center, between December 2011 through September 2022 was obtained. Clinical details including mechanism of injury, trauma scoring, associated injuries, hemodynamic status, surgical procedures, wound complications, ICU stays, hospital stay, prosthesis application, and their outcome were analyzed. Patients were followed up physically in OPD or telephonically.

Results: Total footfall 615,274 patients with 16,786 admissions in trauma surgery, 1,299 amputations and 13 hemipelvectomy patients during the study period of ten years. Seven were in shock on presentation, of which, four were non responders and three responded to initial resuscitation. Seven patients had associated Genitourinary injuries, four had anorectal involvement, five had vascular injuries and six had associated extremity injuries. Six patients underwent hemipelvectomy in the primary surgery and seven ended up in hemipelvectomy on consecutive surgeries. Multiple surgeries were required for all the patients both for control of local sepsis and adequate soft tissue cover. Eight of thirteen patients developed wound infections, and related sepsis, one survived a covid infection and three had MODS. Four out of thirteen patients died and of the nine survivors, prosthesis is being used by three patients, two returned to work without prosthesis and two lost to follow up.

Conclusion: With a multidisciplinary and dedicated team approach, we can expect favorable outcomes in post-trauma hemipelvectomy patients.

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Kiwi Ingenuity – How New Zealand Healthcare Adapted for the Whakaari/White Island Disaster

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Introduction: New Zealand is widely known across the globe as an adventure tourism destination. On December 9, 2019, the natural wonders of the country became a major disaster that impacted the lives of many and stretched the resources of the New Zealand healthcare system.

Whakaari/White Island is an uninhabited, privately owned island 50 km off the North Island of New Zealand. It contains two strato-volcanoes, which were and remain a popular tourist destination. While an international tourist group were enjoying their guided tour of the crater, one of the volcanoes erupted, sending superheated debris and gas into the air. Of the 47 individuals on the island at the time, 39 were rescued. Overall, 25 people survived. The mortality of this event was significantly lower than historic volcanic eruptions involving ballistic and pyroclastic injuries. We are fortunate to present information specifically on the chemical and physiological changes noted from exposure to volcanic ash.

Located in New Zealand's largest city is Middlemore Hospital, home of the National Burns Center. This center is

supported by three regional burn centers throughout the country. Prior to Whakaari, mass-casualty plans were in place, however, system-wide adaptations were required on many levels to ensure delivery of healthcare. This included changes in pre-hospital triage, support for regional burns centers and repatriation to home countries.

This poster presentation takes you on the journey of adaptation experienced within the National Burns Service, focusing on operating theater, intensive care and acute burns management.

Method: Case Study

Results: .

Conclusion: .

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Evaluating the Knowledge, Readiness, and Satisfaction Level of Emergency Medical Service Personnel after an Online Chemical Mass Casualty Response Training Program

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Introduction: Compared to trauma-based injuries, chemical injuries can inflict widespread and persistent injuries to exposed victims. Emergency medical services (EMS) personnel are vulnerable to chemical injuries. Specialized training is required, including zone setup, personal protective equipment (PPE), decontamination, and antidote use, beyond simple advanced trauma life support. The purpose of this study is to evaluate the educational effectiveness of the online chemical-mass casualty incident response education module (C-MCIREM) for EMS personnel.

Method: This study is a retrospective pre-and post-test comparison. Subjects were EMS personnel who enrolled in the C-MCIREM program at the EMS Korea online conference between August 27, 2021 and September 5, 2021. Subjects provided demographic data and completed pre-course and post-course knowledge tests and self-assessments of readiness, as well as a satisfaction survey after the course. For readiness and satisfaction surveys, an 11-point Likert scale was used. The Wilcoxon Rank Sum test was used to compare the two samples.

Results: A total of 322 respondents were enrolled. Two-hundred (62.1%) responded that they were most motivated to take the course because of curiosity about the subject. The median pre-course knowledge score was 57/100 (47, 66) and the post-knowledge score was 80/100 (66, 91) ($p < 0.001$). Participants stated they felt their readiness to provide triage, treatment, transport, decontamination, to select correct