Introduction: There is a consensus that there lacks a standard for primary triage during mass casualty incidents. This is further compounded by a dearth of high quality research on the topic. Some studies suggest the superiority of SALT triage versus other triage systems, however, findings have not widely transitioned to clinical practice. We believe that despite specialized training including that in emergency medicine or emergency medical services (EMS), there will be significant variability amongst triage determination and use of triage methods. This study intends to analyze various provider skill levels and their accuracy of triage determination.
Method: In a disaster exercise, a group of providers trained to use START triage were expected to triage, treat and determine transport order of the patients from a scenario of a simulated intentional radiological dispersal device (RDD) detonation with multiple casualties. Another group of providers trained to use SALT triage were expected to triage, treat, and determine transport order of patients from a scenario of a building collapse after a hurricane to assess SALT triage with the participating officers. Additional cohorts of EMS clinicians will be given the same case scenarios and asked to triage, treat when necessary, and determine transport order of the patients.
Results: The initial data from the RDD exercise includes 102 patient case scenarios with 27 minimal (green), 40 delayed (yellow), and 35 immediate (red) patients. The providers involved in the exercise are trained at minimum to NREMT EMT level. Results showed an under-triage rate of 7.8%, an over-triage rate of 20.6% and overall accuracy of 71.6% when using START triage.
Conclusion: The undertriage rate with START is 7.8% is higher than the generally acceptable rate of less than 5%. Our research is ongoing and we anticipate completion in 2023. We hope that our research provides future direction to improve triage in disaster scenarios.

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The Advancement of the Scientific Study of Prehospital MCI Response from TIIDE to NIGHTINGALE: A Scoping Review

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Introduction: The European Union Horizon 2020 research and innovation funding program awarded the NIGHTINGALE grant to develop a toolkit to support first responders engaged in prehospital (PH) mass casualty incident (MCI) response. To reach the projects' objectives, the NIGHTINGALE consortium adapted the Translational Science (TS) process. The aim of this study is to perform the first TS (T1) phase PRISMA scoping review to extract data that will be used to guide the creation of the initial evidence-based second TS phase (T2) modified Delphi statements for a subsequent study.
Method: The consortium was divided into three work groups (WGs) MCI triage, Prehospital Life Support and Damage Control (PHLSDC) and Prehospital Processes (PHP). Each WG conducted simultaneous literature searches following the PRISMA extension for scoping review with a common research strategy sharing MCI related search terms and then terms specific for each WG. Final included articles went through data extraction based on identified themes and sub-themes from PH MCI response literature to be used to create the future statements.
Results: The initial search yielded 925 total references to be considered for a title and abstract review (PH Triage 311, PHLSDC 329, PHP 285), then 483 articles for a full reference review (MCI Triage 111, PHLSDC 216, PHP 156) and 155 articles for the database extraction process (MCI Triage 27, PHLSDC 38, PHP 90).
Conclusion: The progression of the study of prehospital MCI response enabled NIGHTINGALE partners to methodically obtain information that will contribute to each WG's creation of initial T2 modified Delphi statements.

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A Qualitative Study on the Use of the Hospital Safety Index and the Formulation of Recommendations for Future Adaptations.

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Introduction: Hospitals around the world need to be safe and prepared to face disasters, being these man-made or caused by natural hazards. The Hospital Safety Index (HSI) is a tool developed by the World Health Organization (WHO) that allows access to the level of preparedness of hospitals; it is the most widely used instrument of its kind. Although the HSI is frequently used by hospitals and healthcare facilities around the world, scientific literature on its application in real life is scarce and qualitative studies are absent. By adopting a qualitative methodology, this study aims to investigate the use of the HSI to assess disaster preparedness in hospitals and healthcare facilities, identify challenges and facilitators of