experience. There were 112 victim observations. Four were excluded due to not being triaged. The initial and final triage was correct for 80% of the observations; 13% over- and 7% under-triaged. The mean triage interval was 30 seconds (+21; range: 4–94).

Conclusions: Assessments using SALT Triage were accurate and made quickly during a simulated incident. The accuracy rate was higher than those published for other triage systems and of similar speed.

Keywords: drills; emergency medical services; mass-casualty incident; SALT Triage; training; triage
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(K113) Determination of Field Providers' Opinions of SALT Triage

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Objective: The objective of this study was to determine providers' opinions of SALT Triage after receiving training and using it during a simulated mass-casualty incident.

Methods: A survey was conducted of trainees in a disaster course. Trainees were given a-30 minute lecture on SALT (sort, assess, life-saving interventions, treatment and/or transport) Triage and then used it during a drill. After the drill, trainees were asked to complete the survey. Results were analyzed using descriptive statistics.

Results: Thirty trainees (11 medical doctors (MDs), six registered nurses (RNs), eight emergency medical technicians (EMTs), one RN/EMTs, four other) participated in the course. Of these participants, 67% had prior drill experience (mean: 10 drills) and 37% had prior mass-casualty incident experience (mean: four experiences). Prior to the drill: 7% reported that they felt very confident using SALT Triage, 33% were confident, 30% were somewhat confident, and 30% were not confident. After the drill: none reported not feeling confident using SALT Triage, 27% were at the same level of confidence, 73% felt more confident, and none felt less confident. Before the drill: 52% of respondents felt SALT Triage was easier to use than their current disaster triage protocol, 44% felt it was similar, and 4% felt it was more difficult. After the drill: 67% did not change how easy they felt SALT Triage was to use, 26% thought it was easier to use, and 3% thought it was similar.

Conclusions: Providers felt confident using SALT triage after a 30-minute training session and found it was similar or easier to use than their current triage protocol. Using SALT Triage during a drill improved confidence.

Keywords: drills; confidence; emergency medical services; mass-casualty incident; opinions; SALT Triage; triage; training
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(K114) Use of the Visensia (Biosign) System Improves Emergency Department Trauma Triage: A Cluster Analysis with Outcomes

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Introduction: Triage criteria rely on physiologic, anatomic, and mechanistic indicators of injury to minimize over-triage and under-triage, which remain persistently high (35%–65%). The Visensia Index Score (VIS) is a proprietary algorithm in a bedside monitor (OBS Medical, IN) that integrates five vital signs: (1) heart rate; (2) respiratory rate; (3) blood pressure; (4) pulse oximetry; and (5) temperature. It calculates a score ranging from 1 (no abnormality) to 5 (severe abnormalities). The aim of this study was to explore the utility of VIS in identifying trauma patients likely to have a poor prognosis on arrival to the emergency departments.

Methods: After Institutional Review Board approval, the trauma registry was used to review 117 patients admitted to a Level-1 Trauma Center over a six month period. The first set of vital signs was obtained upon arrival to the emergency department. An initial VIS and a mean VIS (based on multiple VS) was calculated. The analysis included a multivariate mathematical technique and *k*-means cluster analysis. Clusters of populations with different Visensia scores were compared and differences in their outcomes were analyzed.

Results: Two major clusters were identified: VIS Scores >3 increased the risk of mortality as compared to those with scores <3; odds ratio 3.3 [1.04–10.3; p <0.001). There was no association with length of intensive care unit stay, hospital days; or Injury Severity Scale (ISS) scores.

Conclusions: Cluster analysis, a novel multidimensional approach, shows association of a higher VIS (>3) as a useful point-of-care parameter to identify trauma patients likely to have a poorer prognosis, much more than retrospectively computed ISS and Trauma and Injury Severity Scores (TRISS).

Keywords: cluster analysis; emergency department; emergency medical services; prognosis; Visensia Index Score; vital signs
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(K115) Application of Patient Age-Dependent Sacco Triage Method to Victims with Blunt Injuries

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Objective: The Sacco Triage Method (STM) is a mathematical model of resource-constrained triage. The objective of this presentation is to apply STM-Age, an age-augmented version of STM, to blunt trauma victims and compare it to Simple Triage and Rapid Treatment (START) and START-like protocols.

Methods: The objective of STM is to maximize the number of expected survivors given constraints on the timing