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999 EMS RESEARCH FORUM

TITLE OF ABSTRACT: Major Trauma Triage Tools Study (MATTS) triage tools summary

Introduction

The aim of this project is to identify major trauma triage tools currently in use by ambulance services in England, Wales and internationally and subsequently complete a detailed document analysis of these tools. The review will aim to detect the most commonly used predictors of major trauma whilst identifying the evidence behind them.

Methods

A variety of triage tools used internationally were acquired through analysis of systematic reviews freely available on PubMed. The 46 identified tools included: 40 adult/general, 4 paediatric-specific and 2 geriatric-specific tools. Following the acquisition of all triage tools, they were analysed by diagnostic criteria and a detailed spreadsheet produced. Each row of the spreadsheet represented a different triage criterion and each cell was colour coded to suggest the correct course of action for patient management.

Results

In total, 63 separate clinical features and triaging criteria were identified. These were categorised into five major groups (most common variables):

- Physiology (GCS, Low BP).
- Anatomy (Chest trauma, traumatic amputation).
- Mechanism of injury (Falls, high speed RTC).
- Modifiers for high risk groups (Age >55/65, pregnant)
- Time limit to the nearest MTC (>45 minutes).

Additionally, crew concern is a potential predictor in 14 tools. Despite many tools using similar predictors, their respective predictor cut-points varied widely (e.g. from GCS ≤14 to <9).

From the tools assessed, two basic tool structures were discerned:

1. A flowchart style format (34 tools)
2. A points-based scoring system (7 tools)

Conclusions

The various major trauma triaging tools currently in use in the NHS and worldwide are highly varied. Although there are commonly used domains variable cut-points often varied.

Given this significant difference between services' tools, and variability of clinician interpretation of those criteria, large variations in standards of major trauma triaging are likely.