

Trauma team activation; decision-making process at Dutch Emergency Departments

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Introduction

To treat a severely injured patient as good as possible the staff of an Emergency Department (ED) can activate a trauma team. This is a team of professionals which is specialized in the treatment of severe trauma patients.

Literature suggests using a tiered response (two or more trauma teams to be activated) with a downgrading or upgrading system is the most efficient. It makes sure the patient receives the right care at the right time.

Clinical reasoning and accurate decision-making are essential during triage at Emergency Departments. Several factors and criteria are considered to be of influence in the decision-making process for trauma team activation. These can be divided in patient factors, individual factors and contextual factors. The National Guideline Emergency Care (LPSEH) consists of several patient factors which are taken into account in the trauma team activation decision-making process. The most important patient factors according to the national guideline are Mechanism of Injury, Injuries, Signs and Treatment, abbreviated as MIST.

Individual and contextual factors to be of possible influence on the decision-making process are for example experience, knowledge, busyness at the ED and time constraint.

Before a severely injured patient arrives at the ED the staff fills out a pre-notification form on which they write patient information and the type of team they have activated. The patient information only consists of the MIST criteria and some additional information such as age and gender of the patient.

Research

It is not known which factors are considered to be the most important in the decision-making process for trauma team activation and if the decisions made by the ED staff are consistent when presented with the same or similar patients. The staff of the ED is presented with 6-8 clinical vignettes based on actual patients and are asked to decide whether or not a trauma team will be activation and in what composition. Additional information such as years of experience and education of staff is asked and an explanation of the decision is asked.

Methods

- Trauma registration analysis
- Expert panel
- Clinical vignettes

Expectations

Possibly, a pattern can be discovered when comparing the Injury Severity Score of the patient, the type of team which was activated and the patient information from the pre-notification forms. An insight will be obtained on the importance of factors in the decision-making process and the influence of factors on the decision-making process. Future research could provide even more insight on the importance of factors in the decision-making process according to the ED staff and the influence of more individual factors and contextual factors on the decision-making process can be obtained.