ACTIVATION OF TRAUMA TEAMS IN DUTCH EMERGENCY DEPARTMENTS

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INTRODUCTION

Trauma teams can be activated by emergency department (ED) staff to assess and treat a seriously injured patient optimally. Some EDs have one trauma team available, other EDs have two or more different trauma teams to activate, tailored to the needs of the incoming patient. The decision if a (full or modified) trauma team should be activated is mostly based on information provided by the emergency medical service (EMS) and is called in-hospital trauma triage. A system with a tiered response may contribute to the efficiency of the in-hospital trauma triage process by better resource allocation, improved cost containment and in terms of patient outcomes.

Objective: Investigate and compare current practice of in-hospital trauma triage and activation of trauma teams in Dutch EDs.

METHODS

- Cross-sectional survey
- Between May 30, and July 26, 2011
- Managers of all 102 EDs in the Netherlands
- Semi-structured online questionnaire
- Items: type of in-hospital trauma triage system, composition of trauma teams at the ED and the criteria used to activate these teams

RESULTS

Seventy-seven (76%) questionnaires were included in the analyses. Most EDs use a one-team trauma triage system (64%) (Figure 1). The overall number of trauma team members varies from 3 to 16 professionals. 96% of the EDs receive a pre-notification from EMS, mostly by telephone (92%). 40% of the pre-notifications is communicated directly, 31% via an Emergency Medical Dispatcher (EMD), 20% by both EMS and EMD and 9% in another way. The ED nurse usually receives the pre-notification (96%), whereas the decision to activate a team is made by different professionals at the ED (Figure 2). Information mostly available in pre-notification is: blood pressure (84%), pulse rate, age and gender (all 81%). The following criteria are mostly used for trauma team activation: Glasgow Coma Score (85%), Airway, Breathing, Circulation (84%) and Revised Trauma Score (83%). Only 56% of the EDs were satisfied with the current situation on in-hospital trauma triage and found their system useful.

CONCLUSION

- We identified a large variation in trauma team activation across Dutch EDs regarding:
  - the in-hospital trauma triage system (number of teams) and composition and size of trauma teams;
  - how and by whom information about the incoming patient is communicated between EMS and the ED and by whom the decision for trauma team activation is made; information from the pre-notification is not always communicated directly from EMS to the decision maker at the ED: information may be lost;
  - the criteria to activate the different trauma teams.
- Future research needs to address the criteria that could be used to efficiently and safely activate a (full or modified) trauma team and in what way decision makers in Dutch EDs can be supported in the in-hospital trauma triage process.

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