Evaluation of prehospital trauma triage using the Trauma Triage App (TTapp): a study protocol

No registrations found.

Ethical review	Positive opinion
Status	Other
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON25933

Source
NTR

Brief title
TTapp

Health condition

prehopsital, trauma, triage, trauma system, trauma center, mobile app, prediction model, algorithm
pre-hospitaal, traumasysteem, traumacentrum, mobiele app, predictiemodel, algorithme

Sponsors and support

Primary sponsor: University Medical Center Utrecht
Source(s) of monetary or material Support: This work was supported by the Dutch Innovatiefonds Zorgverzekeraars.

Intervention

Outcome measures

Primary outcome

The primary outcome is triage quality with the use of TTapp, based on actual destination facility the patients were transported to, in terms of undertriage and overtriage.

Secondary outcome

Sensitivity, specificity, negative predictive value and positive predictive value of TTapp itself, regardless of destination, will be calculated.

Study description

Background summary

Background

Prehospital trauma triage is a crucial component of a trauma system, to get the right patient to the right hospital. Prehospital trauma triage protocols are used worldwide to help emergency medical services (EMS) providers identify severely injured patients. However, none of the existing protocols can accurately identify severely injured patients, to ensure acceptable triage rates. In the Netherlands, the National Health Institute set the target for undertriage at 10% or less. The aim of the present study is to test a recently developed and validated prediction model, implemented in a mobile app; the Trauma Triage App (TTapp), in two different regions of the Netherlands.

Methods In this diagnostic accuracy study, conducted in two regions in the Netherlands, the use of the TTapp will be analysed. All trauma patients, aged 16 years and older, in need of transport with the highest priority to an emergency department in the Central Netherlands or Brabant region, will be included. Before the pilot with TTapp starts, the EMS providers will be trained to use the mobile app. The primary outcome is triage quality with the use of TTapp, based on actual destination facility the patients were transported to, in terms of undertriage and overtriage. Additionally, sensitivity, specificity, negative predictive value and positive predictive value of TTapp itself, regardless of destination, will be calculated. Severe injury is defined as an Injury Severity Score > 15.

Discussion This will investigate the effectiveness of TTapp, a mobile app based on a prediction model and developed to advance the prehospital trauma triage quality. The pilot will run in two regions of the Netherlands. TTapp might be the key to a tremendous improvement of prehospital trauma triage in the Netherlands.

Study design

04-09-2017 to -3-09-2018 Pilot Trauma Triage App in region Central-Netherlands

01-01-2018 to 31-12-2019 Pilot Trauma Triage App in region Brabant

Intervention

Use of the Trauma Triage App

Contacts

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Eligibility criteria

Inclusion criteria

All trauma patients, aged 16 years and older, in need of transport with the highest priority to an emergency department (ED) in the studies regions, will be included.

Exclusion criteria

Patients transported outside of the studied regions will be excluded.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Parallel

Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Other
Start date (anticipated):	04-09-2017
Enrollment:	1068
Type:	Unknown

Ethics review

Positive opinion

Date:	05-09-2017
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL6486
NTR-old	NTR6673
Other	METC UMC Utrecht : 16-683/C

Study results