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The role of ambulances in morbidity and mortality of gunshot injuries

Submission date	Recruitment status	[_] Prospectively registered
08/09/2015	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
15/10/2015	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
06/11/2017	Injury, Occupational Diseases, Poisoning	

Plain English summary of protocol

Background and study aims
In the 21st century, the characteristics of wars have changed dramatically. Fighting is no longer limited to the battlefield, and many conflicts now take place in civilian areas. This has in turn led to a significant increase in injuries to members of the public, who are not engaging in the fighting themselves. The use of firearms and explosive devices (high kinetic energy weapons) are being used more and more in modern conflicts, a great deal of which takes place in public places such as city centres. In many cases, the injured are taken to civilian hospitals in their own cars, whereas others are taken by ambulance. The aim of this study is to find out whether there is a difference in recovery and death rates in those taken to hospital by ambulance, and those taken by personal vehicles.

Who can participate?
People who have been injured with a high kinetic energy (fast moving) weapon, e.g. gunshot, mine.

What does the study involve?
After agreeing to take part in the study, patients or their relatives are asked to complete a survey asking for information about how they received their injury, the transport used to take them to hospital and information about their social status. Medical records of participants are also reviewed so that the severity of their injuries can be calculated. The health of participants is then monitored for six months after discharge from hospital.

What are the possible benefits and risks of participating?
A possible benefit of participating in the study is that as participants are monitored so closely, potential complications could be spotted and treated earlier. There are no risks of participating in the study.

Where is the study run from?
1. Hakkari State Hospital (Turkey)
2. Van Training and Research Hospital (Turkey)
3. Dicle University Faculty of Medicine (Turkey)
4. Yuzuncu Yıl University Faculty of Medicine (Turkey)

When is the study starting and how long is it expected to run for?
September 2015 to September 2016

Who is funding the study?
Yuzuncu Yıl University (Turkey)

Who is the main contact?
Miss Cristina Zarauz

Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
N/A

Study information

Scientific Title
The Effect of transport modality on high kinetic energy wounded victims' mortality and morbidity

Study objectives

The aim of this study is to investigate whether the type of transport is important in high kinetic energy injuries for morbidity and mortality.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Ethical Committee of Yuzuncu Yıl University, 27/10/2015, ref: 01

Study design
Prospective observational multi-centre cohort study

Primary study design
Observational

Secondary study design
Cohort study

Study setting(s)
Hospital

Study type(s)
Prevention

Participant information sheet
Not available in web format, please use the contact details below to request a patient information sheet.

Health condition(s) or problem(s) studied
High kinetic energy weapons (gunshots and mine explosions) victims

Interventions
All victims who have been transported to the hospital by whether ambulance or other vehicles will asked to take a survey which is about details of injury and demographics after their informed constant have obtained. A Glasgow Coma Scale and Injury Severity Score will be calculated base on victims first admission to hospital. Then all patients will be followed until 6 months in regards of complications and mortalities.

Intervention Type
Supplement

Primary outcome measure
1. Transport vehicle type will be observed when the patient arrives at hospital and will be confirmed in the survey
2. Injury Severity Score (ISS) will be calculated after the patients have arrived at hospital
3. Short term complications and mortality will be determined throughout the patients' hospitalisation through use of patient notes
4. Long term morbidity and mortality will be determined through monitoring patients for 6 months after discharge from hospital, any mortality or morbidity that is related to the primary injury will be noted

Secondary outcome measures
1. Time period that passed until patient arrived at hospital will be calculated in minutes by subtracting the event time from the hospital arrival time
2. Patient demographic (age and gender) will be determined from the patient or relatives during survey after hospitalisation
3. Type of weapon that caused the injury will be determined from the patient or relatives during survey after hospitalisation
4. Types of treatment required will be derived from patient notes after hospitalisation. Patients are divided into the following subgroups:
4.1. Support therapy: Patients who have been given IV fluid and antibiotics only
4.2. Support plus Blood Transfusion: Transfusion number will be noted
4.3. Surgery therapy: Surgery modality will be noted

Overall study start date
15/08/2015

Completion date
01/11/2016

Eligibility

Key inclusion criteria
1. Injured with any kind of high kinetic energy weapon during a conflict
2. Victims whose pre-hospital and post-hospital data is available
3. Patients able to provide informed consent

Participant type(s)
Patient

Age group
All

Sex
Both

Target number of participants
100

Key exclusion criteria
1. Patients injured by other means (e.g. car accidents, stab wounds)
2. Victims who died before being admitted to hospital

Date of first enrolment
01/09/2015

Date of final enrolment
01/05/2016

Locations

Countries of recruitment
Türkiye

Study participating centre
Yuzuncu Yıl University Faculty of Medicine
Zeve Campus
VAN
Türkiye
65080

Study participating centre
Dicle University Faculty of Medicine
Dicle Üniversitesi Rektörlüğü
Merkez
Diyarbakır
Türkiye
21100

Study participating centre
Van Military Hospital
Van
Türkiye
65100

Study participating centre
Hakkari State Hospital
Hakkari
Türkiye
301000

Sponsor information

Organisation
Yuzuncu Yıl University

Sponsor details
Zeve Campus
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Sponsor type
University/education

ROR
https://ror.org/041jyzp61

Funder(s)

Funder type
University/education

Funder Name
Yuzuncu Yıl University

Results and Publications

Publication and dissemination plan
Plan to share the results by publishing an original research article.

Intention to publish date
01/07/2017

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/11/2017		Yes	No