

Exertional heat stroke. Are we cool enough?

No registrations found.

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

Summary

ID

NL-OMON27125

Source

NTR

Brief title

TBA

Health condition

Heatstroke

Sponsors and support

Primary sponsor: Not applicable

Source(s) of monetary or material Support: not applicable

Intervention

Outcome measures

Primary outcome

The objective of this study is to observe what percentage of patients reached a core temperature below 40 degrees Celsius within 30 minutes after starting cooling therapy in runners experiencing EHS.

Secondary outcome

The secondary objectives are:

- What is the minimal mean cooling rate in patients that were cooled suffering EHS in degrees per minute?
- What is the association between consciousness and decreasing temperature by patients suffering EHS?
- What is the effect of weather conditions on acquiring EHS?
- We also treat patients with a heat exhaustion by cooling. Therefore, we are interested in the percentage of patients treated with a heat exhaustion, recovery after cooling, association between consciousness and heat exhaustion, minimal mean cooling rate and admission to hospital.

Study description

Background summary

Exertional heat stroke (EHS) is the most serious form of heat-related illnesses that can occur during sports and exercise. If not recognized and treated immediately mortality rate of EHS is high. Early recognition and initiation of cooling are paramount. There are several strategies for cooling in EHS, including cooling with towels doused in ice water which cover the body of a patient. The aim of this research is to investigate the effectiveness of our treatment of EHS to lower body temperature within 30 minutes beneath 40 degrees Celsius, after entering a medical facility. And thereby reduce mortality and morbidity by patients suffering EHS.

Objective: The aim of this research is to investigate the effectiveness of our treatment of EHS to lower body temperature within 30 minutes beneath 40 degrees Celsius, after entering a medical facility.

Study design: We will conduct a retrospective observational study.

Study population: All participants of 18 years and older that received medical care between 2016 and 2019 at the following running events organized by Golazo: The Marathon of Rotterdam, Bruggenloop, Vredesloop, Ladiesrun, City Pier City.

Main study parameters/endpoints: The percentage of patients with EHS that were cooled, using towels doused in ice water which cover the body, to a temperature lower than 40 degrees Celsius within 30 minutes after entering a medical facility (or collapse).

Study objective

The hypothesis of our study is that with our treatment of EHS we can lower the body temperature within 30 minutes beneath 40 degrees Celsius

Study design

Vital signs were recorded during initiation of the treatment by a designated member of the team, and are repeatedly noted during the stay in the medical facility. The time points are at initiation of the treatment, after 5-10 minutes and before leaving. These are the following measurements: heart rate (in beats per minute), systolic and diastolic blood pressure (in mmHg), tympanic temperature, (in degrees Celsius), Glasgow Coma Score, saturation, respiratory rate (per minutes), capillary refill, glucose (in mmol/l).

Intervention

Not applicable

Contacts

Public

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Scientific

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Eligibility criteria

Inclusion criteria

Runners 18 years and older who received medical care at running events organized by Golazo between 2016 and 2019 that had a body temperature >38 degrees Celsius and were cooled

Exclusion criteria

No cooling pre-hospital, under the age of 18.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL	
Recruitment status:	Recruiting
Start date (anticipated):	25-05-2021
Enrollment:	1400
Type:	Anticipated

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion	
Date:	10-06-2021
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	NL9594
Other	ErasmusMC METC : MEC-2021-0371

Study results