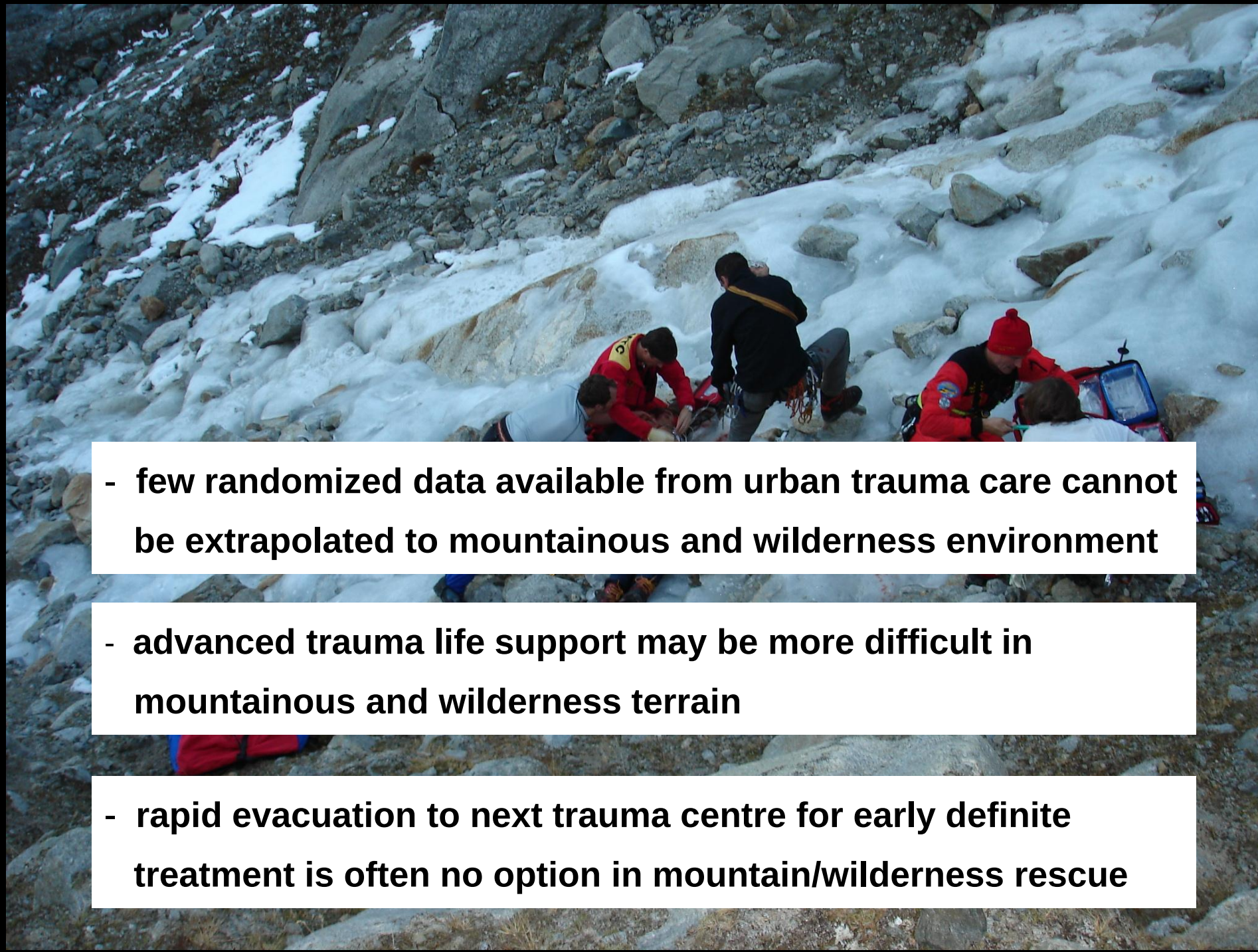
INTERNATIONAL ALPINE TRAUMA REGISTRY

Institute of Mountain Emergency Medicine, European Academy of Bozen and Department of Anaesthesia and Intensive Care Medicine, Medical University Innsbruck


prevent preclinical death or irreversible secondary organ injury by therapy
minimum delay of definite in-hospital treatment and surgical intervention



- few randomized data available from urban trauma care cannot be extrapolated to mountainous and wilderness environment

- advanced trauma life support may be more difficult in mountainous and wilderness terrain

- rapid evacuation to next trauma centre for early definite treatment is often no option in mountain/wilderness rescue

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Aim collect **data** on preclinical **trauma care** and **trauma outcome** in patients admitted to hospital with **severe and life-threatening injuries** after a **mountain or wilderness rescue mission**.

Inclusion Criteria

NACA score ≥ IV or **ISS** ≥ 16 or **BP** < 90 mmHg or **RR** > 30/ minute

and

Mountain or wilderness rescue missions involving **technical rescue** or missions with a **delay in hospital admission of more than 60 minutes** due to the remoteness of the accident site.

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	data points
patient characteristics	n = 3
accident characteristics/ mechanism of injury	n = 3
rescue mission characteristics	n = 7
preclinical time, terrestric or helicopter rescue	
patient condition at scene	n = 8
suspected pattern of injury, GCS, RR, BP	
data on prehospital trauma care	n = 6
patient outcome	
Pattern of injury	n = 2
early	n = 9
laboratory parameters, respiration, circulation	
late	n = 2

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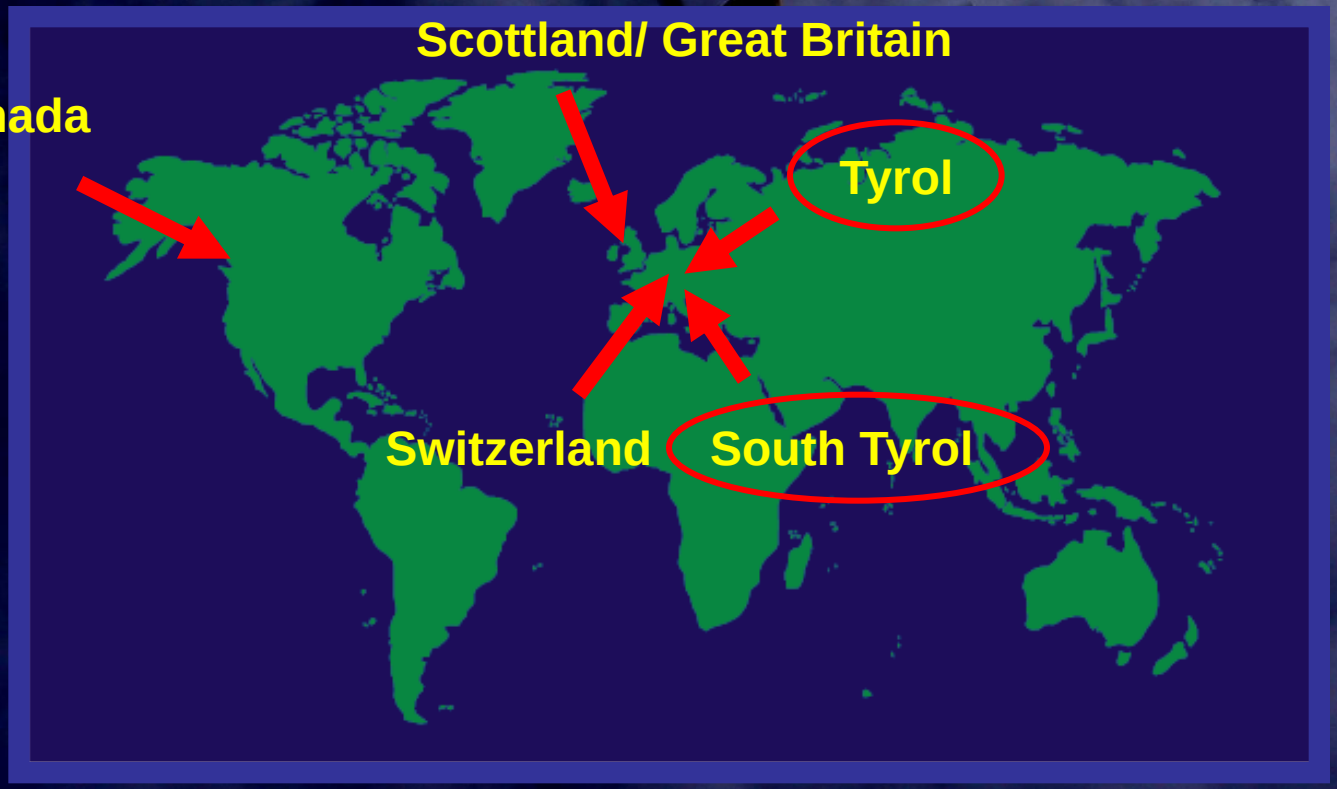

Start January 1st 2011

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Statistics

Considering the **variability** in treatment approaches and rescue systems as well as the **way of data collection** a total of about **750 patients must be included** in the registry to detect **10% differences in clinically important outcome variables** with **statistical significance**. Conclusions concerning other questions like common pattern of injury, diagnostic performance and missed injuries will be **possible earlier**.

Is there a role for registries in evidence based medicine?

Prospective randomized trials are considered the **highest level of evidence** available and they are the **gold standard for scientific evidence.**

So why not **start prospective randomized clinical trials** on particular questions of preclinical trauma care in mountainous or wilderness terrain as this may be the **best way to get evidence beyond any scientific doubt ?**

BUT

There is **little low level scientific evidence** (e.g. retrospective clinical data) that it is **difficult to extract the most important fields** of **controversy** and the **most important questions for high quality prospective studies**. Perhaps it is reasonable to do some more basic work first.

Prospective, randomized trials – although all of high scientific quality – render **opposing results**. This clearly points out that the **results** of prospective randomized trials **apply only to an environment** that is **absolutely identical** to the study environment.

Extrapolation of study results to **non study centers** may be **difficult**, in particular for trials involving only university or level one institutions.

In some fields of medicine there are **factors** that decisively **influence patient outcome** but simply **cannot be randomized or standardized**.

Arguments for a Registry

Data collection for a registry will be **possible** within a **reasonable period of time** with an **acceptable low logistic burden**.

Compare outcome data in a registry does **not dependent** that much on study details and study environment. A factor that is **important** when considering the **wide variability of mountain and wilderness rescue systems**. A **registry allows** a **comparison** of outcome for **different treatment strategies** with acceptable high scientific evidence in the poorly controlled environment of mountain rescue.

A registry **eliminates** most of the **problems** associated with trying to **standardize and randomize** an **accident scenario in the mountains**.

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- platform for trauma care in mountainous and wilderness terrain
- overview on the rescue strategies used worldwide
- compare advantages and disadvantages of different rescue approaches
- compare patient outcome
- statistical and scientific analysis of data


THANK YOU FOR
YOUR ATTENTION !