International Hypothermia Registry
International Hypothermia Registry

1. Need for a registry
2. Aim
3. Method
4. Expectations
1. NEED FOR A REGISTRY

- « Survival after accidental deep hypothermia and prolonged cardiac arrest is rare…however, long term survival rates without sequelae of 47% is higher than previously reported » *NEJM Walpoth et al 1997*

- No consensus national/international guidelines for hypothermia treatment

- Insufficient medical literature, no case reports on negative outcomes
2. AIMS

- Create a database on accidental hypothermia to:
  - Study pre-hospital treatments and their impact on outcome
  - Increase our knowledge on impact and complications of rewarming techniques.
  - Prevent and decrease severity of post-rewarming complications (i.e. lung and brain oedema)
3. Method

- Internet-based English survey, protected anonymous data
- Eligibility: all interested hospitals/rescue centres
- Includes:
  - victims with core body T° < 32°C, preference for T° < 28°C with cardiac arrest.
  - accidental hypothermia of any origin (exposure/avalanche/immersion/suicide attempt…)
- Registry components:
  - Anonymous patient data
  - Accident data
  - Prehospital treatment
  - Hospital treatment, rewarming method, clinical and laboratory data
  - Post-rewarming complications
  - Outcome
- Data access and publication possible for your own cases
- Global data analysis by the International Working Group on Accidental Hypothermia (IWAH)
- Quality control reports on a yearly basis
Access Rights definition

Access levels:

i) Case editor:
May enter cases in a given centre, may only access or modify his/her own cases (entered under the same login/password). Viewing or modification of other cases in the centre or registry is not possible.

ii) Centre reviewer:
May only see cases entered by one given centre, no data modification possible no case entry possible.
Suitable for data studying.

iii) Centre supervisor:
May enter cases, may access or modify data of all the cases entered his/her centre.
Has access to names and birthdates, in order to facilitate hospital file retrieval and differed case entry.

iv) Registry supervisor:
May enter cases, may access or modify data of all the cases in the registry.
# International Hypothermia Registry

**Accident Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident Date</td>
<td>07/09/2009</td>
</tr>
<tr>
<td>Accident Time</td>
<td>Hours 3, Minutes 24</td>
</tr>
<tr>
<td>Type of accident</td>
<td>Water, Alpine, Urban/Rural</td>
</tr>
<tr>
<td>Context of accident (water)</td>
<td>Immersion, Submersion</td>
</tr>
<tr>
<td>Temperature (water) known</td>
<td>Unknown, Known, °C</td>
</tr>
<tr>
<td>Time in water (water)</td>
<td>Unknown, Known</td>
</tr>
<tr>
<td>Rescue</td>
<td></td>
</tr>
<tr>
<td>Rescue on site by Companions/Self</td>
<td>First on site, Second on site</td>
</tr>
<tr>
<td>Rescue on site by Paramedics</td>
<td>First on site, Second on site</td>
</tr>
<tr>
<td>Rescue on site by Physician</td>
<td>First on site, Second on site</td>
</tr>
<tr>
<td>Medicated rescue arrival date</td>
<td>23/09/2009, Hours 19, Minutes 27</td>
</tr>
</tbody>
</table>

Interval between accident and rescue: 16 (days) 16 (hours) 3 (minutes)
## Pre-warming management of the patient

### Arrival time at rewarming hospital

<table>
<thead>
<tr>
<th>Date</th>
<th>Hours</th>
<th>Minutes</th>
</tr>
</thead>
</table>

### Neurologic evaluation

- **Arrival hospital Glasgow:** Possible / Impossible
- **Global Glasgow Score:**
- **Eye opening:**
- **Verbal response:** None / To pain / To speech / Spontaneous
- **Motor response:** None / Extension / Flexor response / Withdrawal from pain / Localizes pain / Obeys commands

<table>
<thead>
<tr>
<th>Left pupil</th>
<th>Right pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>React to light</td>
<td>React to light</td>
</tr>
<tr>
<td>Size</td>
<td>Size</td>
</tr>
</tbody>
</table>

- **Core T° determined at hospital admission:**
- **Shivering present:** Yes / No

### ECG

<table>
<thead>
<tr>
<th>ECG recordings</th>
</tr>
</thead>
</table>

### Circulation

- **Defibrillation:** Yes / No / Unknown
- **Cardiovascular arrest:** Yes / No / Unknown
- **Systolic blood pressure** [mmHg]
- **Diastolic blood pressure** [mmHg]
- **Heart rate** [bpm]

### Major concomitant trauma / disease / intoxication

<table>
<thead>
<tr>
<th>Major concomitant trauma</th>
<th>Major concomitant disease</th>
<th>Major concomitant intoxication</th>
</tr>
</thead>
</table>

### Drug administration

<table>
<thead>
<tr>
<th>Drug</th>
<th>General anaesthetics: narcotics or sedatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>125 mg</td>
</tr>
</tbody>
</table>

### Fluid replacement

<table>
<thead>
<tr>
<th>Fluid replacement</th>
<th>Fluid replacement volume [ml]</th>
</tr>
</thead>
</table>

### Airway rewarming

<table>
<thead>
<tr>
<th>Airway rewarming</th>
<th>Warmed</th>
</tr>
</thead>
</table>
### Outcome at 1 year

#### Outcome assessment data
- Outcome assessment date

#### Consent status
- Patient's consent given

#### Time spent in hospital/rehabilitation after ICU
- Time spent in hospital/rehabilitation after ICU

#### Alive after 1 year
- Alive after 1 year

#### Neurologic evaluation
- Outcome Glasgow
  - Glasgow score: O: 0 V: 0 M: 0 -- Tot: 0

#### Long term complications
- Neurological - CNS long term complications
- Neurological - PNS long term complications
- Cardiac long term complications
- Pulmonary long term complications
- Digestive long term complications
- Renal long term complications
- Metabolic long term complications
- Musculoskeletal long term complications
- Other long term complications
REGISTRATION FORM

International Hypothermia Registry (IHR)
https://www.hypothermia-registry.org

First name: 
Surname: 

Title: 

Position in the institution: 
Institution 
Address: 
Town: 
Country: 

Postcode: 

Tel. 
Fax: 
(Including country code) 
e-mail: 

Institution web-site: 
Date: 

Interest / involvement in accidental hypothermia treatment.

Please choose one or more:

☐ Pre-hospital care (e.g. rescue team) 
☐ In-hospital care (e.g. rewarming / ICU) 
☐ Post-hospital rehabilitation / outcome 
☐ Induced / therapeutic hypothermia 
☐ Fundamental research on hypothermia 
☐ Other (please detail):

How many cases of accidental hypothermia do you treat yearly?:

Please indicate:

Type of etiology: 
☐ Alpine 
☐ Sea 
☐ Urban 
☐ Other (please detail): 

Type of rewarming: 
☐ Non-invasive 
☐ CPB 
☐ ECMO 
☐ Other (please details):

Comment:
4. Expectations

- International awareness on hypothermia, its treatment and outcome
- Wide international participation for at least 10 years
- Multicentre quality control
- Creation of international consensus guidelines for:
  - prehospital management
  - rewarming
  - post rewarming management
International Hypothermia Registry (IHR)

https://www.hypothermia-registry.org

Improving hypothermia prevention, rescue, treatment, outcome

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Supported by:
Thank you for your interest and participation

The IHR is working
Please register
Enter your patients regardless of outcome

https://www.hypothermia-registry.org
Can we agree on national guidelines?

Dear Colleagues

The Organizing Committee cordially invites you to participate in the 3rd International Symposium on Accidental Hypothermia in Tromsø, Norway — "The Port to The Arctic".

This Symposium is organized every second year by leading European universities involved in research and treatment of victims of accidental hypothermia.

The goal of this 3rd International Symposium is to further explore current controversies in the "chain of survival" and care for the hypothermia victim and hopefully reach consensus on some of these topics.

This meeting place is also aimed at coordinating ongoing research and share clinical experience as well as preventive and educational efforts.

High North Research Centre for Climate and the Environment (The "Fram Centre"), Tromsø

Organizers
Institute of Clinical Medicine, University of Tromsø, and University Hospital of North Norway (Clinics of Anaesthesia and Intensive Care, Cardio-Thoracic Surgery, Emergency Medicine)

Organizing committee
Torkjel Tvei, Hads Gilbert, Arne Skogsett, Lars Bjertnes, Truls Myrme, Kristian Barthe, Kristine Wærhaug, Torvind Nasheim

International Advisory Board
Hermann Brugger, Giuseppe Faggian, Beat Walpich, Gary C. Sicke, Fidel Eisensohn

Poster submission deadline, June 30th

Thursday Sept 1st 2011

Welcoming Opening Ceremony
Mayor of Tromsø
Kjell Øystein Reitan
Sami Cultural welcome

"The Survivors" of accidental hypothermia: a tale of the extreme: "Varg" experience

The big picture: Challenges in the sub-arctic North
Occupational hazards
Fishing (Case presentation)
Offshore (Risk assessment)
Mass Tourism (Cases: Maxim Girsky)
Outdoor activities (mountain, sea)

Prevention better than cure: but what strategies?
Symptomatic mandatory training: national safety training for fishermen - does it work?
Systematic voluntary training: can we change behaviour?
Protective gear: industry vs science?
Inteurope, legislations, punishments: any effects?

Lunch with poster presentations

Prehospital strategies in remote areas:
when to keep going - when to surrender?
ELCOR 2010 guidelines - what have changed?
How to organise: The hypothermia chain of survival?
The Northern-Norwegian experience
The Swedish experience
The Finnish Experience
The Danish Experience; Mass accidental hypothermia ann. 2011

National prehospital protocols needed:
a case for quality assurance
Four tales of mass hypothermia: what went wrong?
Do we need national/international prehospital guidelines?

Round table discussion: The way forward

Closing remarks

www.hypothermia.no

Registration starts March 7th
Thank you for your interest and participation

https://www.hypothermia-registry.org