

Session 2: Hyperthermia Mont Blanc (11:20-12:00)

The Importance of an International Hypothermia Registry for improving the outcome of accidental hypothermia victims

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Deep hypothermia takes the lives each year of otherwise healthy adults and children by accidents occurring principally at sea, in mountain and urban areas. Non accidental hypothermia is fairly well managed and is frequently induced for several types of treatments and surgeries. On the contrary, accidental deep hypothermia is rare and its manage-

ment remains a real challenge with many uncertainties for medical and scientific teams worldwide. Cases of successful treatment of accidental deep hypothermia with little to no sequela have been reported with body temperatures as low as 13.7°C, but the low incidence of these cases impedes sustainable research and conclusions.

Studies at a national level have been carried out in several European countries, such as the UK National Immersion Incident Survey (UKNIIS) established in 1990 by the Institute of Naval Medicine in the UK. It was created to establish survival curves, implicating water



CPR of a deep accidental hypothermia patient in cardio-respiratory arrest at 3,000m altitude

and therefore body temperature. Project SARRAH (Search and Rescue, Resuscitation and Rewarming in Accidental Hypothermia) in Germany, aims to create an effective rescue service based on early treatment and transport of hypothermia cases from the incident site to hospitals with experienced and professional staff. It also aims to improve the survival rate of these victims as well as registering each case. A Dutch Hypothermia Project was created by the ministry of health of the Netherlands after a ferry boat disaster in 1987. Its aims were standardisation of treatment protocols, establishment of national network expertise and management of disaster situations. Up to this day, no international project has tried to link these national efforts to increase knowledge on hypothermia.

The lack of data and therefore epidemiological studies leads to an imperative need for a closer networking between the centres of excellence working in the field of hypothermia with the aim of using the International Hypothermia Registry (IHR). This Registry gathers the information of the existing hypothermia projects and that of hospitals, in order to make the world's largest hypothermia network and database. In addition to the Registry, an internet-based educational and discussion platform acts as a link between hospitals and rescue




centres. Without the joint work of many countries, the quantity of data needed to advance in scientific knowledge and significantly improve the survival and prognosis of these patients would take decades to achieve.

The network of International scientists working in the field of hypothermia enables a better, more focused experimental and clinical research which will ultimately benefit those patients, victims of hypothermia.

The IHR allows the collection and storage of case reports concerning accidental deep hypothermia in surviving and deceased victims. It allows the establishment of triage/flow charts and valuable outcome prediction models. It also helps to establish needed guidelines and improve prevention, rescue and treatment of deep hypothermia.



Networking of centres of excellence performing active experimental and clinical research in the field of hypothermia will bring several advantages by stimulating new research protocols and approaches. These range from insulation of clothing, rescue modalities to intra-operative rewarming with the help of cardiopulmonary bypass machines, not forgetting that most pathophysiologic responses to cold have to be tested experimentally before considering a clinical application.


The IHR is supervised by an International working group and by the means of the following website: <https://www.hypothermia-registry.org>



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