



# RAPPORT FRA IKARS MEDISINSKE KOMMISJON 2023

Live Kummen, Norsk Folkehjelp

# REC: AVSLUTTE GJENOPPLIVNING I FJELLREDNING

International Commission for Alpine Rescue



## International Commission for Alpine Rescue

**2023 Draft ICAR  
Termination of Resuscitation in Mountain  
Rescue updated Recommendations**

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## Termination of Cardiopulmonary Resuscitation in Mountain Rescue: A Scoping Review and ICAR MedCom 2023 Recommendations

Viktor Lugnet,<sup>1-3</sup> Miles McDonough,<sup>1,4</sup> Les Gordon,<sup>1,5,6</sup> Mercedes Galindez,<sup>1,7,8</sup>  
Nicolas Mena Reyes,<sup>1,9-11</sup> Alison Sheets,<sup>1,12,13</sup> Ken Zafren,<sup>1,14-16</sup> and Peter Paal<sup>1,17</sup>

No.		Grade
	<b>Non-traumatic cardiac arrest</b>	
1	In patients with clinical condition suggestive of a non-traumatic cause of cardiac arrest, cardiopulmonary resuscitation should be initiated.	1A
	<b>Safety of rescuers</b>	
2	If the environment is unsafe, consider first transporting the patient to a safe place before commencing resuscitation.	1A
	<b>Termination of CPR</b>	
3	Resuscitation may be terminated when <b>all</b> of the following criteria apply: unwitnessed loss of vital signs, no return of spontaneous circulation during 20 minutes of CPR, no shock advised at any time by AED or only asystole on ECG, and no hypothermia or other special circumstances that warrant extended CPR. If no AED is available, consider terminating CPR after 20 minutes of unsuccessful CPR.	1A
	<b>Use of automatic external defibrillator (AED)</b>	
4	The use of an automated external defibrillator (AED) improves management of a primary cardiac arrest.	1A
	<b>Mechanical chest compressions</b>	
5	Mechanical chest compression devices may be helpful with prolonged CPR or during travel through difficult terrain.	1A
	<b>Traumatic cardiac arrest</b>	
6	Resuscitation should be withheld in victims with signs of un-survivable trauma such as decapitation, loss of brain tissue, truncal transection, incineration and penetrating cardiac trauma.	1A
7	In traumatic cardiac arrest patients, reversible causes should be treated. In patients still without vital signs after >10 min of CPR termination of resuscitation should be considered.	1B
	<b>Hypothermia</b>	
8	Hypothermic patients without vital signs should be considered for CPR and ideally transported to a center capable of ECLS rewarming.	1A

	<b>Drowning</b>	
9	Consider withholding CPR in adults with a submersion time >30 min in water >6°C or submersion > 90 min in water <6°C, because the chance of neurological intact survival is very small. Chance of survival is poor regardless of water temperature with a submersion >30 min.	2A
10	In children, especially if < 6 years old, consider performing CPR remembering that some have survived neurologically intact despite longer submersion times in water of < 6°C when treated for hypothermic cardiac arrest with ECLS rewarming.	1C
	<b>Avalanches</b>	
11	In avalanche victims with burial duration > 60 minutes, asystole, and an obstructed airway, consider withholding or terminating CPR.	1A
12	Avalanche victims with a core temperature < 30°C without evidence of an obstructed airway or lethal injuries should be managed with full resuscitative measures and transported to an ECLS capable center.	1C
	<b>Lightning strikes</b>	
13	In cardiac arrest patients caused by a lightning strike, prolonged CPR should be performed. Prolonged ventilatory support may be necessary even when cardiac output has returned.	2A
	<b>Burns</b>	
14	Patients who suffer cardiac arrest from burns are unlikely to survive with good neurological outcome. Cardiopulmonary resuscitation should be terminated after 20 minutes if there is no return of a spontaneous circulation.	1C
	<b>Poisoning</b>	
15	In patients with cardiac arrest because of suspected poisoning or substance overdose, contact with a poison control center should be considered before termination of CPR.	1C

# REC: MOTSTANDSDYKTIGHET MOT STRESSBELASTNING I FJELLREDNING

International Commission for Alpine Rescue

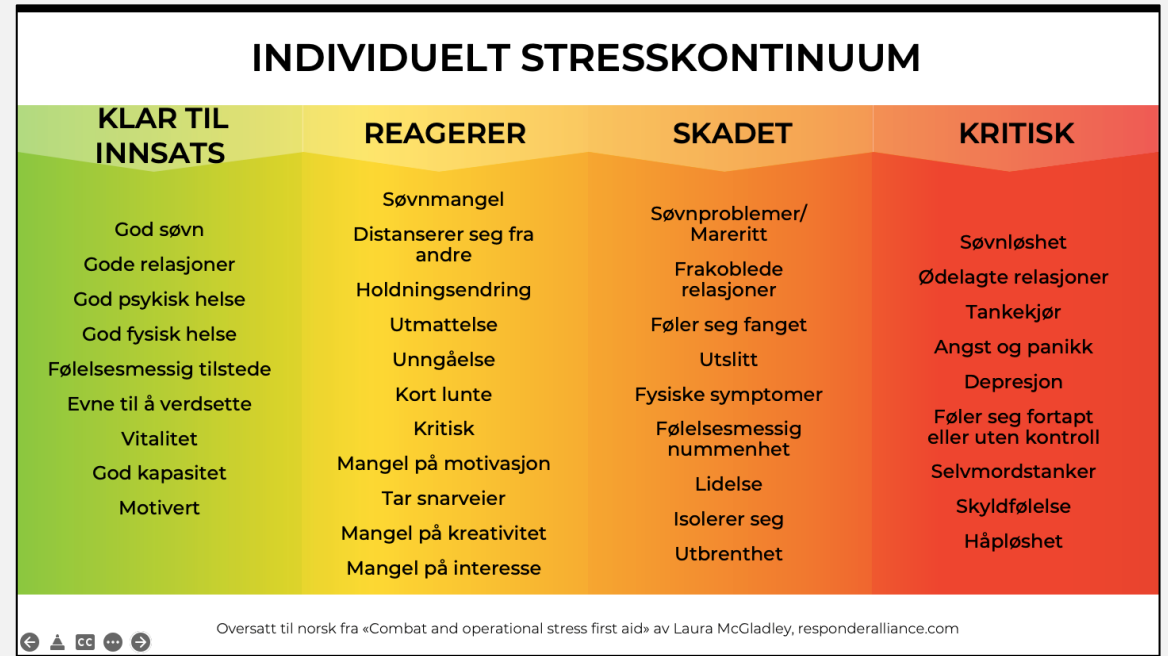


## **International Commission for Alpine Rescue**

**2023 Draft ICAR  
Recommendations for Stress Resilience in  
Alpine Rescue**

Nr.	Recommendation
	<b>Preparation and pre-planning</b>
1	Understanding exposure to stress, the formation of stress injury, its physical effects and risk factors should be part of all medical training.
2	Stress injury training should be recurring to normalize and destigmatize the discussion of emotional and mental health topics.
3	Organisations should develop a method to promote resilience and connection within its teams. This could be a resilience team within the team or other peer support to coordinate resilience efforts. Organisations should ensure there is continuous education about stress injury.
4	Mountain rescue organisations should develop strategies for the assessment of, the on going monitoring of, and the team response to a potentially traumatising event (PTE - see below) or other critical incident such as a line of duty death. Other responding agencies should be included in this planning.
5	Successful organisations reduce exposure to stressors and proactively offer support. They should develop social cohesion and have zero tolerance policies on bullying, harassment, emotional and physical abuse.

	<b>During an incident or exposure</b>
6	Stress continuum utilisation (Table 2) should be routine in the day-to-day activities of the team and the individual rescuer.
7	Stress First Aid* (SFA) should be practiced in order to provide practical, effective, and timely interventions. The five intervention principles (safety, calm, self-efficacy, connection, and hope) should be used when implementing SFA.
8	If feasible, rescuers should be able to “opt out” of traumatic exposures. Consider a “tactical pause” when there has been a major change to the mission goals. For example, a change from rescue to body recovery.
	* Stress First Aid focuses on the rescuer; Psychological First Aid embraces both rescuer and casualty/bystanders. The intervention principles are very similar.



After the incident or exposure	
9	After action reviews or critical incident debriefs should be timely when a potentially traumatising event is identified. The focus should be on establishing the facts of the incident, what went right and areas for improvement. Acknowledgment of the incident stressors should occur but this should not retraumatise the participants.
10	Rescuers and team leaders should understand the elements of stress injury recovery and the normal timing of the stress cycle.
11	The 3:3:3 (see below) model for follow up and the traumatic stress questionnaire should be utilized to provide support to exposed rescuers and agencies.
12	Mental health professionals working with SAR personnel should be familiar with the rescuers' tasks and culture of the organisation. A common language should be used consistently.

## TRAUMATIC EXPOSURE PROTOCOL

### POTENTIALLY TRAUMATIZING EVENT (PTE) CRITERIA

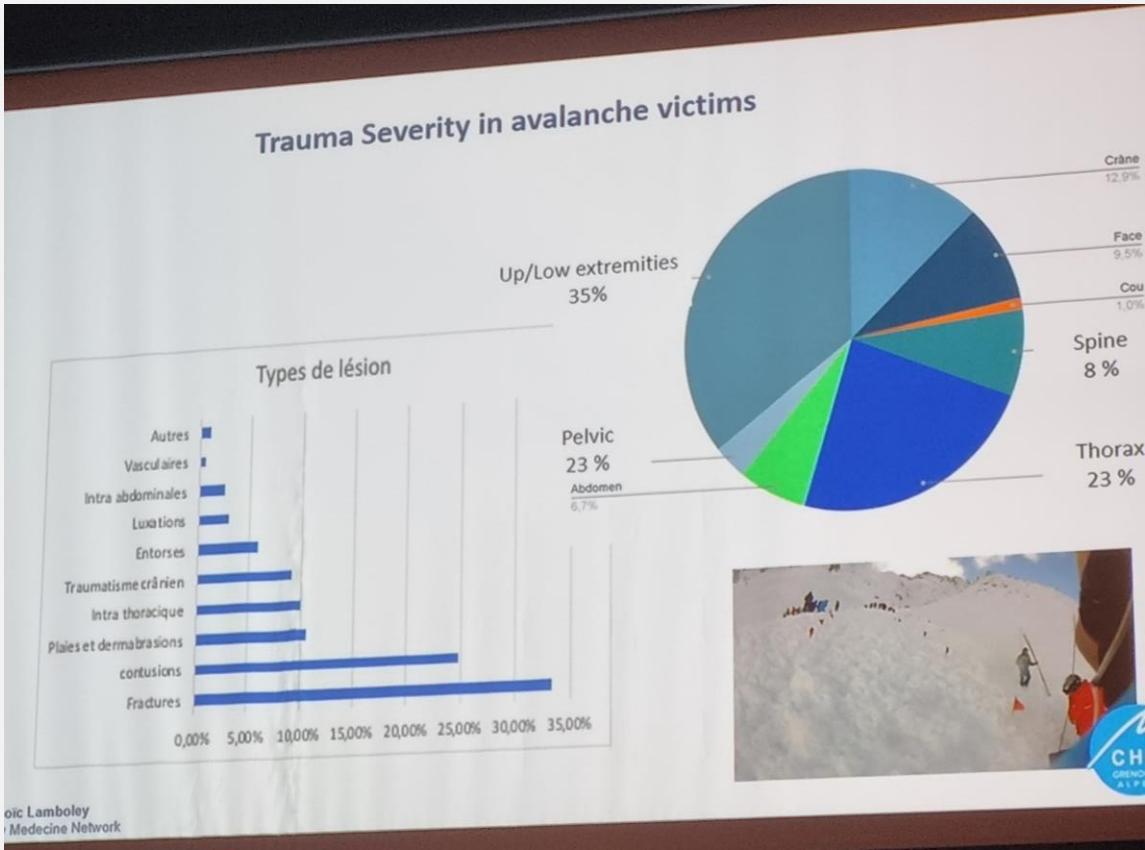
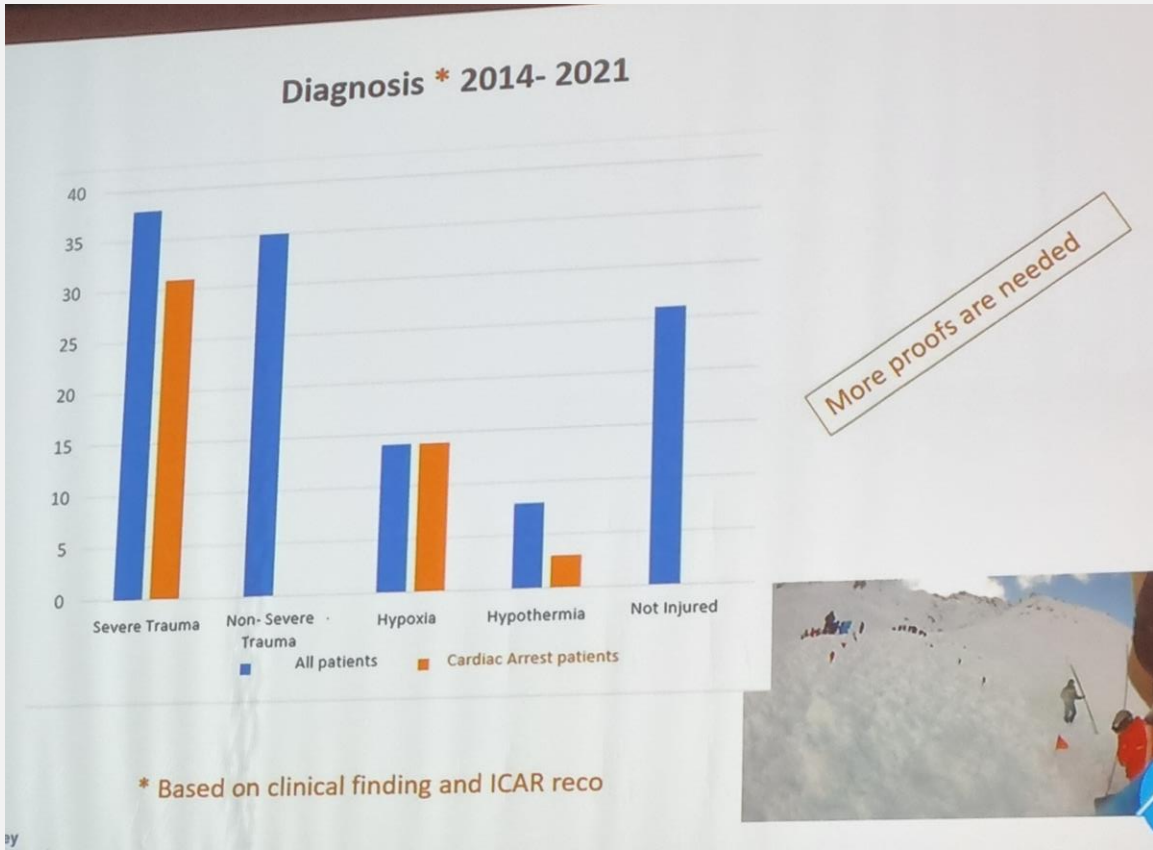
- FAMILY CONTACT
- PERSONAL CONNECTION OR EMPLOYEE INVOLVEMENT
- DUTY TO ACT
- MISSION INJURY/HELPLESSNESS
- EXTREMES OF EXPOSURE
- OVERWHELMED/DEPLETION
- INCIDENTS INVOLVING CHILDREN
- COMPLEXITY OF INCIDENT
- FIRST TIME EXPOSURE

### 3-3-3 EXPOSURE PROTOCOL

3 DAYS POST INCIDENT	3 WEEKS POST INCIDENT	3 MONTHS POST INCIDENT
Stress Continuum Check-in Normalization/Education Leverage <b>GREEN</b> Choices (make a plan) Self & Partner Awareness (Support Return to Baseline) Life Stressors Check-in	Complete TSQ Scores > 6 = increase risk of stress injury development Provide Resources for Professional Help Stress Continuum Check-in Increase Self-Awareness of Stress Injury Revisit Plan to return to Green Baseline	Stress Continuum Check-in Revisit Plan to return to Green Baseline Offer Resources and Connection Offer Further check-ins if requested.

LAURA MCGLADREY | RESPONDERALLIANCE.COM

# FRANSK SKRED-REGISTER





# SPINALT SJOKK - KASUISTIKK

# KJEMISKE VARMETEPPER

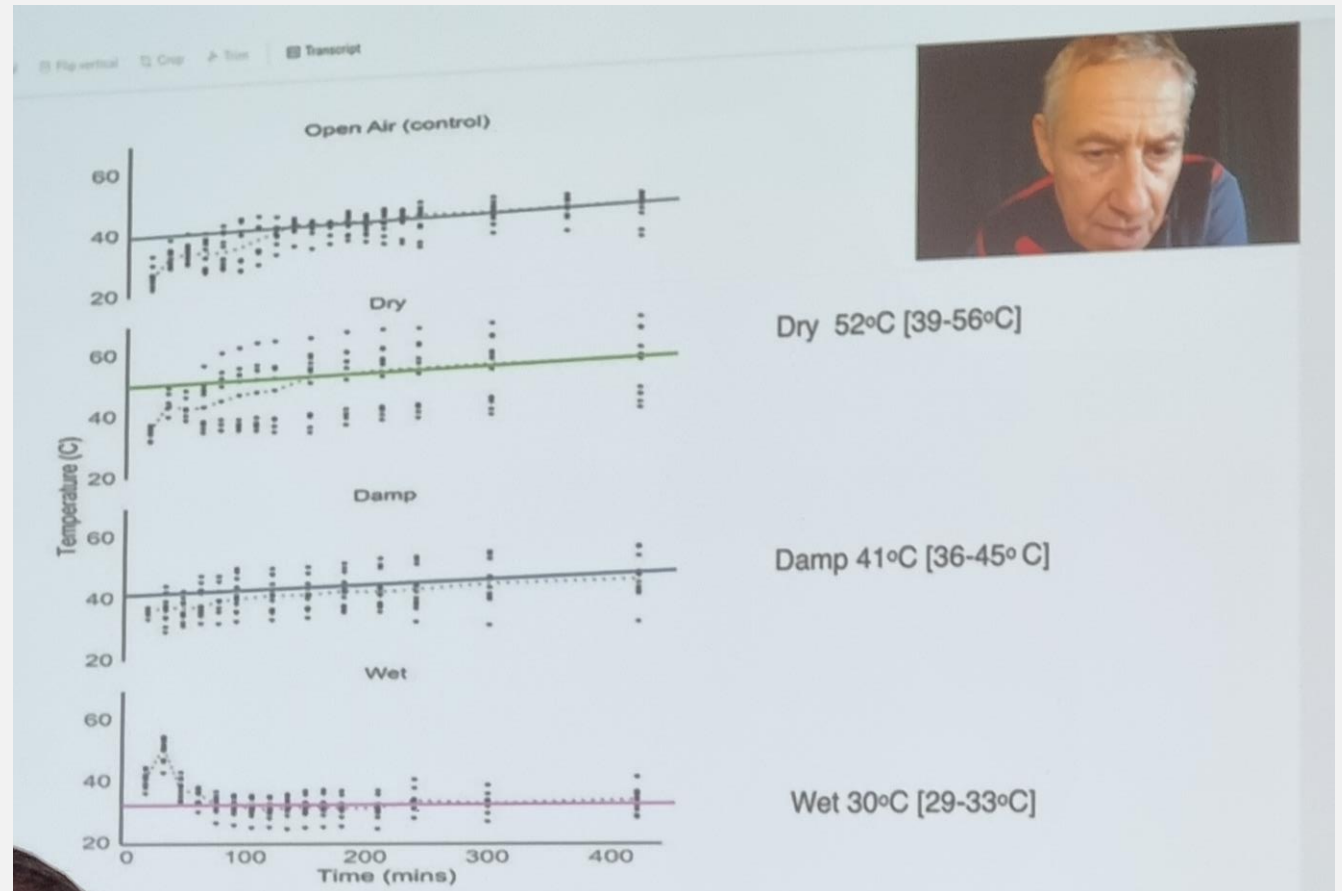
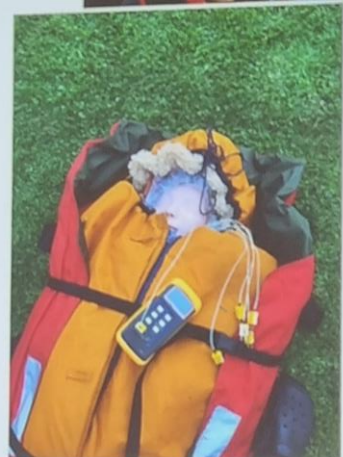
WILDERNESS & ENVIRONMENTAL MEDICINE XXX; XXX(XXX): ■-■

## ORIGINAL RESEARCH

### Performance of a Chemical Heat Blanket in Dry, Damp, and Wet Conditions Inside a Mountain Rescue Hypothermia Wrap

Mike Greene<sup>1</sup>; Geoff Long, MPhil<sup>2</sup>; Karen Greene, MBBS<sup>1</sup>; Matt Wilkes, PhD<sup>2</sup>

<sup>1</sup>Mountain Rescue England and Wales; <sup>2</sup>School of Sport, Health and Exercise Science, University of Portsmouth, UK



# NY OVERLEVELSESKURVE SNØSKRED

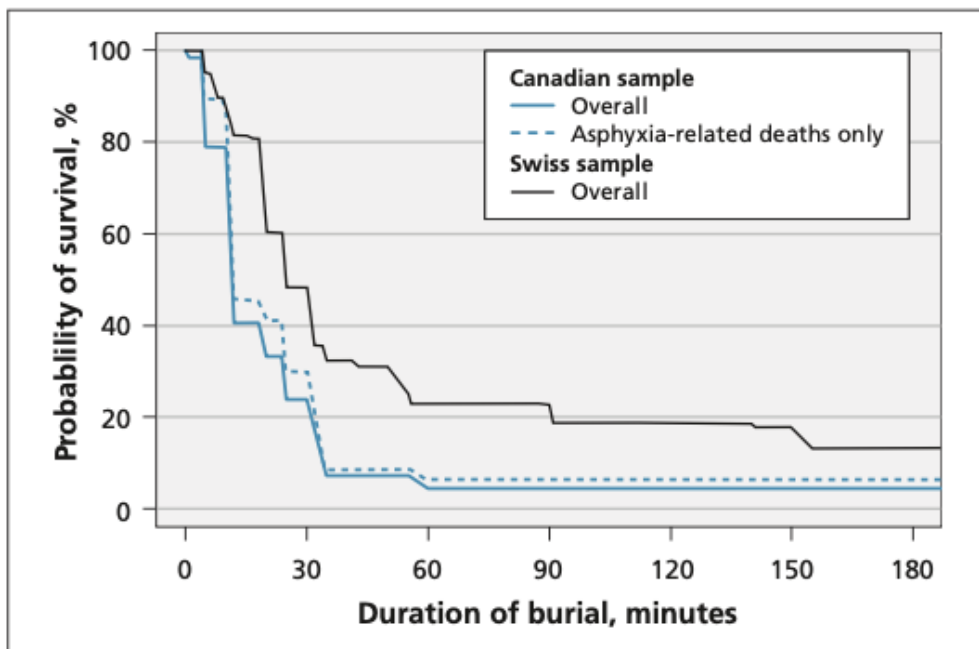


Figure 1: Overall survival curves for people completely buried in avalanches in Canada ( $n = 301$ ) and Switzerland ( $n = 946$ ) from Oct. 1, 1980, to Sept. 30, 2005, by duration of burial (Dümbgen comparison:  $p = 0.001$ ). The dotted line represents the Canadian survival curve including only asphyxia-related deaths ( $n = 255$ ).

## Clinical paper

### Survival probability in avalanche victims with long burial ( $\geq 60$ min): A retrospective study



David Eidenbenz<sup>a</sup>, Frank Techel<sup>b</sup>, Alexandre Kottmann<sup>c</sup>, Valentin Rousson<sup>d</sup>, Pierre-Nicolas Carron<sup>a</sup>, Roland Albrecht<sup>e</sup>, Mathieu Pasquier<sup>a,\*</sup>

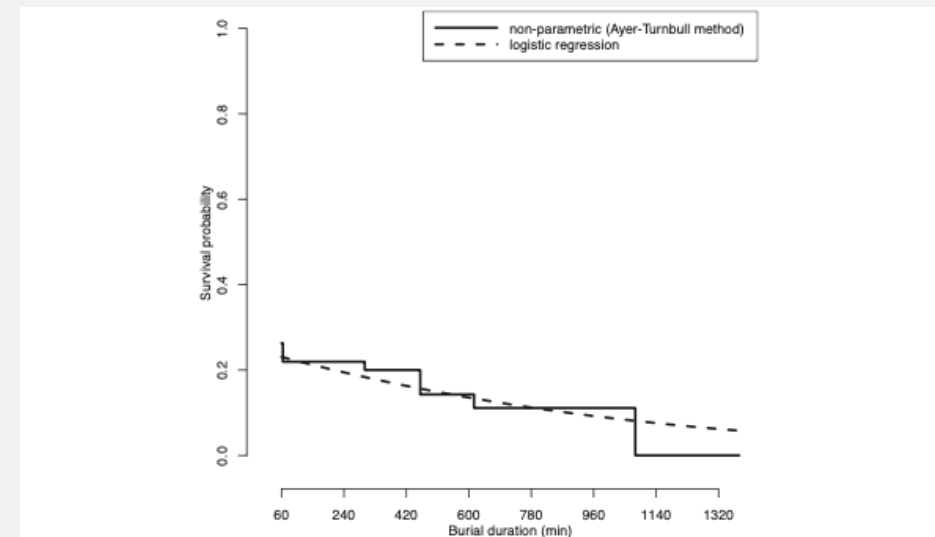
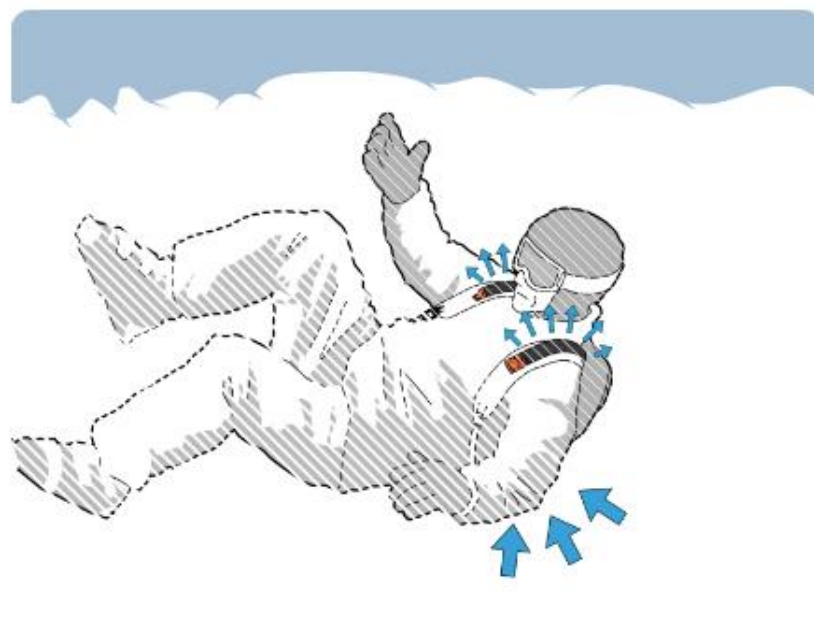
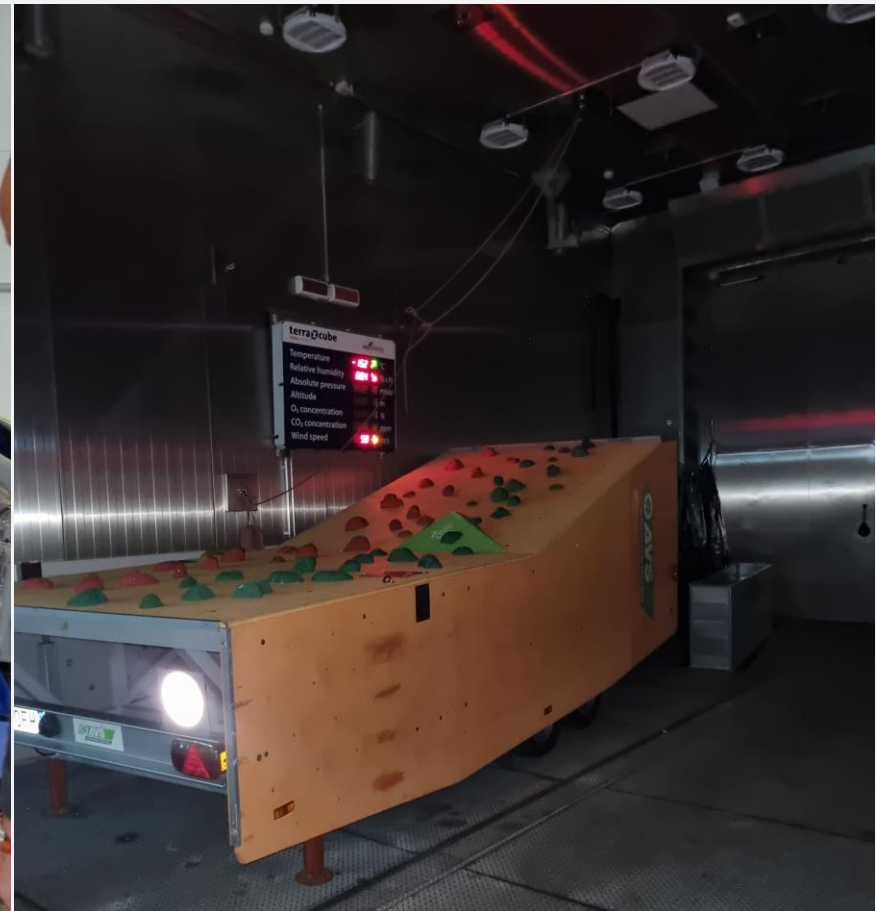


Fig. 3 - Survival probability as a function of burial duration of completely buried avalanche victims with a burial time of  $\geq 60$  min but  $< 24$ h, Switzerland, 1997–2018, estimated using either a non-parametric method or via logistic regression.

# SAFEBACK



# TERRA X-CUBE



# NYE PRODUKTER



# BONUSKASUISTIKKER: BREREDNING

WILDERNESS & ENVIRONMENTAL MEDICINE 2022; 33(4): 469–72



## CASE REPORT

### Survival After Being Wedged in a Crevasse for 16 Hours in Alaska

Gordon G. Giesbrecht, PhD<sup>1</sup>; Ken Zafren, MD<sup>2,3,4</sup>; Jaime Anderson<sup>5</sup>; Chris Erickson<sup>6</sup>

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WILDERNESS & ENVIRONMENTAL MEDICINE 2022; 33(2): 239–44



## CASE REPORT

### Death After Crevasse Rescue in Antarctica

Gordon G. Giesbrecht, PhD<sup>1</sup>; Jeffrey R. Brock, MBBS<sup>2</sup>

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