



Title CSOP 012 Prevention of Hypothermia

Version No: 1.5

Effective date: 27/07/2021

APPROVALS

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Next Review Date:	August 2023		

HISTORY

Effective Date	Version No.	Summary of Amendment
14/01/2013	1.1	Appendix 1 removed as not relevant
01/04/2014	1.2	Content changed
Feb 2017	1.3	Review, minor amendments
Dec 2018	1.4	Minor amendments encompassing use of vapour barriers especially in severely hypothermic casualties
2021	1.5	1. Re-titled 2. Language change to focus less on weather and more on exposure, injuries and time. 3. Language change to promote early aggressive control of heat loss



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REFERENCES

Document Reference Number	Document Title
1	Krishna et al: Physiological predictors of death in exsanguinating trauma patients undergoing conventional trauma surgery. Aust NZ J Surg 1998; 68:826-829
2	Hirschberger A et al; Trauma Damage Control. Crit Care 1997; 3:460-464
3	Mitra et al; Trauma patients with the 'Triad of Death'. EMJ. 2001 Jul 23 (EPub ahead of print)
4	Thomassen et al; Comparison of three different prehospital wrapping methods for preventing hypothermia- a crossover study in humans. Scandinavian Journal of Trauma, resuscitation and Emergency medicine. 2001 19:41
5	Hermann Brugger, Bruno Durrer, Fidel Elsensohn et al. Resuscitation of avalanche victims: evidence based guidelines of ICAR MEDCOM. Resuscitation (84) 2013, 539-546
6	Bennet BL and Holcomb JB Battlefield Trauma-Induced Hypothermia: Transitioning the Preferred Method of Casualty Rewarming. Wilderness and Environmental medicine, 2017; (28) pages S82-S89

1. Definitions/Acronyms:

Abbreviations/Acronym	Definitions
ICU	Intensive Care Unit
SOP	Standard operating procedure
IV	Intravenous

2. Purpose

- To ensure a uniform and effective approach to prevention of heat loss in critically ill or injured patients.



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- To describe circumstances when Thermal Blankets would be appropriate for use.

3. Scope

Regardless of the mechanism of injury, the traumatised patient is at substantially higher risk of hypothermia. Trauma induced hypothermia is a major contributing factor to coagulopathy and clinical studies confirm that even mild hypothermia is a predictor of mortality in multiply injured patients. Trauma induced hypothermia is recognised regardless of the ambient temperature.

In all patients it should be remembered that shivering will increase oxygen requirements and metabolic demands in a critically unwell patient. Anaesthetised patients lose their ability to shiver and will be prone to hypothermia and its sequelae.

The aim of this SOP is to encourage staff to initiate the early pursuit of prevention of heat loss in all unwell patients and advise on best practice to achieve that considering our capabilities.

4. Preventing heat loss

4.1 Minimise on scene time. Exposure can make even minimally injured patients time-critical and close liaison with other rescue personnel needs to occur to keep scene time as short as possible.

4.2 Protect patients from wind and rain using plastic sheeting/ tarpaulins.

4.3 Prevent heat loss.

2.3.1 Only remove dry clothing that you need to and recover exposed skin when possible

2.3.2 Remove wet clothing and replace with dry coverings

2.3.2 Use a 'Blizzard' thermal blanket and a normal blanket on top of that

4.4 If significantly hypothermic (<32), wet clothing should only be removed if it can be done with minimum patient movement and the patient can be immediately insulated effectively (5).

If this cannot be achieved, wet clothes should be left on and the patient wrapped in an occlusive sheet ('Blizzard' thermal blanket) to act as a vapour barrier. Insulating blankets can then be placed on the outside of the vapour barrier layer where they will be more effective. In these circumstances all such packaging should take place as a minimum under the cover of a shelter tent on scene.



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4.5 Continued assessment and management of patients should be initiated in the back of a heated ambulance with the doors shut as soon as is practicably possible.

4.6 Early and repeated monitoring of the patient's temperature using:

- a. Tympanic or external thermometer (primary bag)
- b. Invasive temperature monitoring- (disposable bags)

4.7 Thermal blanket systems should be used in all anaesthetised, critically unwell or injured patients unless a specific contraindication is present.

4.8 Avoid cold IV fluids. If required, use a fluid warmer to mitigate the additional cold load to the patient

5.0 Thermal Blankets method of use

These are a single-patient use wrap that will help to maintain body temperature by:

1. Reducing heat loss
2. Providing protection from wind and rain
3. Creating a vapour barrier to retain the insulating properties of insulation on the "dry" side

It is to be used on ALL anaesthetised patients, and all patients with multiple significant injuries. It would be appropriate to use it on patients with severe / extensive burns.

The patient should be wrapped tightly in the blanket and this should then be covered with a dry blanket layer to minimise heat loss.

Thermal blankets should not be used in patients with minor injuries or medical conditions where blankets and warming the aircraft will suffice.

Document patient temperature and the outside air temperature on scene and at hospital on the PRF.

End of Document
