

PRACTICE GUIDELINE

Effective Date: 5-20-05

Manual Reference: Deaconess Trauma Services

TITLE: PREVENTION OF HYPOTHERMIA (Reference to Intravascular Temperature Management (Alsius) & Hypothermic Coma Protocol)

PURPOSE: To define methodologies to prevent hypothermia in the trauma patient.

DEFINITIONS:

1. Hypothermia: A body temperature below normal in any victim of trauma.
2. “Clinical” hypothermia: A core temperature below 35° C in any victim of trauma and is classified as follows:
 - a. Mild hypothermia: 32° to 35° C.
 - b. Moderate hypothermia: 30° to 32° C.
 - c. Severe hypothermia: <30° C.
3. Patients at risk for hypothermia:
 - a. History of prolonged, cold environmental exposure.
 - b. Massive blood and fluid loss with large fluid requirements.
 - c. Severe head injury.
 - d. Infants and children.
 - e. Burns.
 - f. Drowning victims.

GUIDELINES:

1. All victims of major trauma are considered “at risk” for hypothermia.
2. All trauma patients should have an initial temperature measured via the oral, rectal or bladder route within 15 minutes of arrival.
3. All trauma patients should be managed using principles of passive rewarming, i.e. removal of wet clothing/linen, coverage with warm blankets, and maintenance of adequate ambient room temperature (82 degrees F). Additional protection for infants/children can include booties and a cap.
4. Care should be taken to minimize exposure during diagnostic and therapeutic procedures.
5. The trauma room temperature should always be maintained at greater than 82° F.
6. The operating room should be maintained at 85° F.
7. All fluids and blood products should be warmed, either with a standard fluid warmer (Hotline or Bair Hugger) or via the rapid Level 1 Infuser that will always be kept in the trauma room. A back-up Level I warmer is available from the OR or Trauma Intensive Care Unit.
8. Patients with a core temperature < 96.8 F (36C) should have additional active external rewarming with a convective air blanket (Bair Hugger).

9. Trauma patients with a core temperature < 95 F (35C) should have consideration of additional active core rewarming:
 - a. Notify the trauma attending immediately.
 - b. Consider contacting the cardiothoracic surgeon or nephrologist immediately and discuss the use of active re-warming by veno-venous or veno-arterial bypass (ECMO) and to arrange for a cardiothoracic perfusionist.
 - c. Begin aggressive passive re-warming measures as above.
 - d. Consider heated oxygen circuits & warmed gastric lavage.
10. Trauma patients that are intubated and hypothermic should have warmed humidified oxygen.

REFERENCES:

- Deaconess Trauma Guideline Manual, ENDOTRACHEAL INTUBATION AND AIRWAY MANAGEMENT.
- Deaconess Hospital Policy & Procedure Manual, BAIR HUGGER.
- Emergency Department Policy & Procedure Manual, LEVEL 1 INFUSOR.
- Emergency Department Policy & Procedure Manual, HOT LINE INFUSOR.
- Hypothermic Coma Protocol - F-5165 (11-08).
- Deaconess Hospital Policy and Procedure Manual, Intravascular Temperature Management (Alsuis) (10-23-08).

REVIEWED DATE	REVISED DATE
JAN 06	JAN 08
JAN 07	10-23-08 Alsuis Management P&P
	11-08 Hypothermic Coma Protocol