# Hypothermia – Adult & Pediatric 2.11

### EMT STANDING ORDERS - ADULT & PEDIATRIC

- Routine Patient Care.
- Avoid rough movement and excess activity.
- Prevent further heat loss:
  - Insulate from the ground and shield from wind/water. 0
  - 0 Move to a warm environment.
  - Gently remove any wet clothing and dry patient. 0
  - Cover with warm blankets including the head and neck. 0
- If unresponsive, obtain esophageal or rectal temperature, if feasible.
- Obtain blood glucose.
- Maintain horizontal position.
- Apply truncal warm packs. •
- Consider covering the patient's mouth and nose with a surgical mask to prevent • respiratory heat loss.
- A minimum of 45 60 second assessment of respirations and pulse is necessary to confirm respiratory arrest or cardiac arrest.
- If pulse and breathing are present, continue rewarming techniques.
- If pulse and breathing are absent, start CPR see Cardiac Arrest Protocols 3.2.

## ADVANCED EMT - ADULT ONLY PARAMEDIC STANDING ORDERS – ADULT & PEDIATRIC

- Warm IV 0.9% NaCl 38°C 42°C (101.4°F 107.6°F) should be used.
- If pulse and breathing are absent and esophageal or rectal temperature is <32°C (89.6°F):
  - Continue CPR.
    - Give IV medications based on dysrhythmia (consider increasing the dosing time to allow drugs to circulate).
  - Defibrillation as indicated. 0

#### STAGE: I Conscious, shivering Core Temp 35 to 32°C Treatment: Warm environment and clothing, warm sweet drinks, and active movement (if possible). STAGE: II Impaired consciousness, not shivering <32 to 28°C Core Temp Cardiac monitoring, minimal and cautious movements to avoid arrhythmias, horizontal position and immobilization, full-body insulation, active external and minimally invasive Treatment: rewarming techniques (warm environment; chemical, electrical, or forced- air heating packs or blankets; warm parenteral fluids). Unconscious, not shivering, vital signs present ${<}28\,\text{to}\,24^{\circ}\text{C}$ STAGE: III Core Temp Treatment: HT II management plus airway management as required; ECMO or CPB in cases with cardiac instability that is refractory to medical management. No vital signs <24°C STAGE: IV Core Temp HT II and III management plus CPR and up to three doses of epinephrine (at an intravenous or intraosseous dose of 1 mg) and defibrillation, with further dosing guided by clinical response; rewarming with ECMO or CPB (if available) or CPR with active external and Treatment: alternative internal rewarming.

#### PEARLS:

- Patients with severe frost bite injury may benefit from urgent treatment with IV TPA at a burn center.
- Most digital thermometers will not read below 35°C (95°F).
- Hypothermic patients are often significantly dehydrated, and may require repeat fluid boluses.
- Transportation with continuing CPR may be justified if hypothermia is present or suspected.
- Patients with Stage III or IV hypothermia may benefit from treatment at a facility capable of ExtraCorporeal Membrane Oxygenation (ECMO) or CardioPulmonary Bypass (CPB).

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