2.9 Hyperthermia – Adult & Pediatric

EMT STANDING ORDERS- ADULT & PEDIATRIC

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- Routine Patient Care.
- Move victim to a cool area and shield from the sun or any external heat source.
- Remove as much clothing as is practical and loosen any restrictive garments.
- If alert and oriented, give small sips of cool liquids.
- Monitor and record vital signs and level of consciousness.
- Obtain temperature – rectal temperature preferred as appropriate.
- If temperature is 40^0C (>104^0F) or if altered mental status is present, begin active cooling by:
  - Continually misting the exposed skin with tepid water while fanning the patient (most effective).
  - Truncal ice packs and wet towels/sheets may be used, but are less effective than evaporation.
  - Discontinue active cooling when the patient reaches 38.5°C (101.5°F), or if shivering occurs and cannot be managed by paramedics (see below).

ADVANCED EMT STANDING ORDERS – ADULT & PEDIATRIC

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- ADULT: Consider 500ml 0.9% NaCl IV fluid bolus for dehydration even if vital signs are normal.
- PEDIATRIC: Consider 10 – 20ml/kg 0.9% NaCl IV fluid bolus for dehydration even if vital signs are normal.

PARAMEDIC STANDING ORDERS- ADULT

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- If uncontrolled shivering occurs during cooling:
  - Midazolam 2.5mg IV/IN, may repeat once in 5 minutes or; 5mg IM may repeat once in 10 minutes **OR**
  - Lorazepam 1mg IV, may repeat once in 5 minutes or; 2mg IM, may repeat once in 10 minutes **OR**
  - Diazepam 2mg IV, may repeat once in 5 minutes

PARAMEDIC STANDING ORDERS- PEDIATRIC

- If uncontrolled shivering occurs during cooling:
  - Midazolam 0.1mg/kg IV/IM or 0.2mg/kg IN (single maximum dose 1mg); Note: a 5mg/ml concentration is recommended for IN administration), **OR**
  - Lorazepam 0.1mg/kg IV/IM (single maximum dose 1mg), **OR**
  - Diazepam 0.2mg/kg IV or 0.5mg/kg rectal (single maximum dose 2mg IV or 4mg rectal)

PEARLS:

- Exertional hyperthermic patients may be significantly dehydrated, and may require repeat fluid boluses.
- Immersion cooling is the most effective method to lower core body temperature if proper resources are available.

Hyperthermia:
Elevated temperature may be due to environmental exposure, pharmacologic agents, or excited/ agitated delirium (see Behavioral Emergencies 2.5). Mortality and morbidity are directly related to the length of time the victim is subject to the heat stress.