

### *Michigan* TRAUMA AND ENVIRONMENTAL HEAT EMERGENCIES

Initial Date: 5/31/2012 Revised Date: 12/02/2022

# Heat Emergencies

- 1. Follow General Pre-hospital Care-Treatment Protocol.
- 2. Pediatric patients (< 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol
- 3. Determine history/evidence of heat exposure.
- 4. Check blood glucose (may be MFR skill, see Blood Glucose Testing-Procedure Protocol) and treat hypoglycemia per Adult or Pediatric Altered Mental Status-Treatment Protocol.

#### HEAT CRAMPS:

1. Move the patient to a cool environment and attempt oral liquids (may use commercial sports/rehydration).

#### HEAT EXHAUSTION:

- 1. Move the patient to a cool environment.
- 2. Remove tight clothing.
- 3. Cool patient, provide air conditioning/fanning. Avoid chilling/shivering.
- S 4. Obtain IV/IO Access and administer fluid bolus NS or LR wide open (refer to Vascular Access and IV Fluid Therapy-Procedure Protocol).
  - a. Adults (> 14 years of age): up to 1 liter
  - b. Pediatrics (<14 years of age): up to 20 mL/kg
  - 5. Patient may take oral fluid replacement rather than IV if no nausea. Allow oral intake of cool fluids or water (may use commercial sports/rehydration drinks). Do not permit patient to drink if altered mental status, abdominal pain, or nausea. Avoid carbonated, alcoholic and caffeinated beverages.
  - 6. Treat nausea according to **Nausea/Vomiting-Treatment Protocol**.

#### HEAT STROKE:

- 1. Move the patient to a cool environment.
- 2. Remove tight clothing.
- 3. Immediate cooling provide air conditioning and fanning. Avoid chilling/shivering.
- 4. Place patient in semi-reclining position with head elevated.
- S. Obtain IV/IO Access and administer fluid bolus NS or LR wide open (refer to Vascular Access and IV Fluid Therapy-Procedure Protocol).
  - a. Adults ( $\geq$  14 years of age): up to 1 liter
  - b. Pediatrics (<14 years of age): up to 20 mL/kg
  - 7. Treat nausea according to Nausea/Vomiting-Treatment Protocol.
- 8. Initiation of aggressive cooling may take priority over transport. Contact Medical Control for further cooling and transport guidance.

## MANAGEMENT OF PATIENT WITH EXERTIONAL HEAT STROKE

1. Cool as quickly as possible via ice or cool-water immersion, if possible. Alternative means, such as continually misting the exposed skin with tepid water while fanning the victim, may be used if immersion is not possible.

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Section 2-10

- a. Cool as much of the body as possible, especially the torso.
- 2. Cool first, transport second when possible.
- (S) 3. Obtain IV/IO Access (consider resting the patient's arm on the side of immersion tub to start IV while patient is still immersed) and administer fluid bolus NS or LR wide open (refer to Vascular Access and IV Fluid Therapy-Procedure Protocol).
  - a. Adults (<u>></u> 14 years of age): up to 1 liter
  - b. Pediatrics (<14 years of age): up to 20 mL/kg
  - 4. If patient experiences seizures, refer to Adult or Pediatric Seizure-Treatment Protocol.
- 5. Monitor ECG (lead cables can go in the water).

Protocol Source/References: NASEMSO CLINICAL GUIDELINES