HYPOTHERMIA / COLD INJURY / FROSTBITE
STATEWIDE ALS PROTOCOL

Initial Patient Contact – Follow Protocol #201
Assess respirations and pulse for 45 seconds each

- Manage Airway/ Ventilate, as indicated
  - Intubate gently if indicated
- Apply Oxygen
- Monitor ECG / Pulse Oximetry
- Environment
  - Move patient to warm dry place
  - Remove wet clothing
  - Wrap in warm blankets

Patient temperature > 30° C (86° F)?
Patient is shivering and conscious?

- TRANSPORT IMMEDIATELY
  - Transport to center capable of bypass rewarming, if possible
  - Consider air ambulance if transport time > 30 minutes
- Obtain IV/ IO NSS
  - administer NSS 20 mL/kg up to 2000 mL total
  - use warmed NSS if possible
- Check blood glucose
  - if < 60 mg/dL, administer Dextrose

If cardiac arrest develops, follow Cardiac Arrest- Hypothermia protocol #3035

Contact Medical Command

Repeat warmed NSS bolus to total of 60 mL/kg (max.3000 mL)

- Active external rewarming:
  - apply heat packs to groin, axillae, and neck, if possible.
- Consider IV NSS
- Check blood glucose
  - if < 60 mg/dL, administer Dextrose
- If the patient is alert, administer warm non-caffeinated beverages (if available) by mouth slowly.

Contact Medical Command
HYPOTHERMIA / COLD INJURY / FROSTBITE
STATEWIDE ALS PROTOCOL

Criteria:

A. Generalized cooling that significantly reduces the body temperature.

B. Body temperature < 35° C (95° F).
   1. Hypothermia is severe if core body temperature is < 30° C (86° F).

C. Frostbite generally affects feet, hands, ears, and/or face. Skin initially appears reddened, then mottled, bluish, white and/or gray. This is painful initially then becomes numb.

Exclusion Criteria:

A. Cardiac Arrest from hypothermia – Follow protocol # 3035.

B. DOA, including the following - see DOA protocol # 322.
   1. Submersion for >1 hour.
   2. Body tissue/chest wall frozen solid.
   3. Body temperature same as surrounding temperature and other signs of death (lividity/ rigor)

C. Frostbite or cold injury isolated to soft tissues – Follow BLS Hypothermia Protocol # 681

Notes:

1. Vital signs should be taken for a longer time than usual, so that a very slow pulse or respiratory rate is not missed. Assess pulse for 45 seconds. If a pulse or respirations are detected, do not perform CPR.

2. Use warmed humidified oxygen if available.

3. If unresponsive to verbal stimuli or temperature <30° C (86° F), transport to center capable of extracorporeal rewarming (cardiac bypass) if possible. If unsure whether center is capable of 24-hour/7-day emergent bypass rewarming, contact medical command to confirm availability OR transport to the closest Level II or III Trauma Center, following Trauma Triage Protocol # 180. Contact medical command at destination facility as soon as possible to provide maximum time for staff to prepare to receive the patient.

4. If the patient has severe hypothermia and vertical evacuation is required, transport the patient in a level position when possible. Transporting vertically with the head up has been associated with seizures and death.

5. Dextrose dosing:
   a. Adults- 25 gms IV/ IO, 10-50% dextrose concentration
   b. Pediatrics- 2 mL/kg IV/ IO of 25% dextrose (or 5 mL/kg of 10% concentration)

6. Do not place heat packs directly against skin- wrap in towel.

7. DO NOT permit fluids by mouth if patient also has severe traumatic injuries or abdominal pain.

Performance Parameters:

A. Review for transport to center capable of bypass rewarming when appropriate