

EL DORADO COUNTY EMS AGENCY

PREHOSPITAL PROTOCOLS

Effective: July 2009

Reviewed: July 2021

Revised: July 2021

Scope: BLS/ALS –Adult and Pediatric

EMS Agency Medical Director

COLD EXPOSURE – ADULT/**PEDIATRIC**

PROTOCOL PROCEDURE: Flow of protocol presumes that the patient's condition is continuing. If patient is in severe distress, immediate, rapid transport is preferred with treatment performed en route.

Basic Life Support

EMT

ABCs / ROUTINE MEDICAL CARE –

- Remove wet clothing, dry, and cover patient with warm blankets. Always try and maintain patient in horizontal position. Handle hypothermia patients gently and evaluate for trauma.
- Assess airway and support ventilation with appropriate airway adjuncts as indicated. Do not hyperventilate as this can cause VFib.
- Apply oxygen if pulse oximetry <94% or signs of hypoperfusion or respiratory distress
- Be prepared to defibrillate and perform HP-CPR should the patient arrest.
- Place patient in warm environment. Apply heat packs to axilla, groin and neck. Do not place directly on patient's skin or head.
- Patient should be handled gently; avoid patient exertion.
- All pulse checks in the hypothermic patient should be taken for 60 seconds. Hypothermia may precipitate PEA.

For FROSTBITE:

Immobilize and wrap affected extremity with thick warm blankets or clothing.

Avoid placing chemical heat packs directly on injured area. Do not rub skin to rewarm. Do not allow refreezing.

If AED equipped (Patients > 1 year old only):

For CARDIAC ARREST (prior to ALS arrival):

Perform 2 minutes of CPR while attaching automatic or semiautomatic external defibrillator to patient if so equipped.

If defibrillation is indicated, limit shocks to one only. Follow with 2 minutes of CPR.

If still no pulse or evidence of breathing, continue with CPR until ALS personnel take over care of patient.

For CARDIAC ARREST (during patient treatment):

Attach automatic or semiautomatic external defibrillator. **If defibrillation is indicated, limit to only one shock.** Follow with 2 minutes of CPR.

If there is still no pulse or evidence of breathing, continue with CPR until ALS personnel take over care of patient.

If no defibrillator is available, perform CPR until return of spontaneous circulation or ALS personnel take over care of patient.

LOSOP

EMT working under Local Optional Scope

GLUCOSE LEVEL ASSESSMENT - Via finger stick and treat if indicated.

Advanced Life Support

Paramedic

For HYPOTHERMIA (Mild/Moderate):

BEGIN RE-WARMING - Remove wet clothing, dry and cover patient with warm blankets to prevent any further heat loss. Apply heat packs to axilla, groin, and neck; do not place directly on patient's skin

CARDIAC MONITORING - Follow appropriate cardiovascular protocol

VASCULAR ACCESS – Establish IV/IO

NORMAL SALINE - Give **warm** NS: 1000 mL bolus (Adult) or 20 mL/kg (Peds)

GLUCOSE LEVEL ASSESSMENT - Via venipuncture or finger stick and treat if indicated

REFER TO ALTERED LEVEL OF CONSCIOUSNESS OR SEIZURE PROTOCOLS IF INDICATED.

FOR HYPOTHERMIA (Severe/Cardiac Arrest):

PALPATE FOR PULSE - For 60 seconds to determine whether perfusion is present

CARDIAC MONITORING:

PEA - Transport as gently as possible – CPR if no evidence of perfusing rhythm

Asystole

- Begin HP-CPR and refer to ALS pulseless arrest algorithm
- Administer 1 round of medications only
- Continue CPR

VF/VT

- Begin HP-CPR and refer to pulseless arrest algorithm
- Administer a single defibrillatory shock and 1 round of medications only
- Continue CPR

VASCULAR ACCESS – Establish IV/IO

NORMAL SALINE – Give warm NS: 1000 mL bolus (Adult) or 20 mL/kg (Pediatric)

TRANSPORT – continue warming measures and resuscitation to hospital to allow accurate assessment of temperature and survivability. Pediatric patients should be transported to a pediatric trauma center as ECMO may be indicated.

CONTACT BASE for further orders if indicated

Hypothermic patients often appear expired but may be salvageable even with extended resuscitation times. In isolated hypothermia HP-CPR is indicated for situations where a perfusing rhythm is uncertain. Careful assessment for pulses is required with “PEA” as a subtle pulse may be present. ETCO₂ may be helpful.

<https://www.uptodate.com/contents/hypothermia-in-children-management/print>