

Environmental - Temperature Related Emergencies

Community First Responders

Remove patient from environment, when possible

ALL DSHS Credentialed Providers

Heat Related

Body temperature assessment

Severe muscle cramps may be relieved by patient gently stretching the muscle

If patient is alert and not nauseated with signs of hypovolemia, rehydrate with water, balanced electrolyte solution, or half strength sports drink (50% water / 50% sports drink)

Temperature elevation/patient with no altered mental status should be slowly cooled with ice packs, wet towels, and/or fans to pressure points / arterial pulse assessment points

Temperature elevation/patient with altered mental status (heat stroke) should have aggressive cooling to unclothed patient utilizing water (fine mist spray preferred) and fans in conjunction with ice packs to groin and axilla

Cooling should be stopped if shivering occurs

Cold Related

Protect patient from further heat loss (remove wet clothing, application of blankets, warm environment, etc.).

Suspicion of cardiac arrest in cold environment, utilize 30-45 seconds to confirm pulselessness.

In the absence of a confirmed temperature, provider should initiate standard resuscitative efforts as necessary.

Body temperature assessment

Blood glucose assessment

Confirmation of body temperature <86 degrees F:

 No active rewarming (heat, forced hot air, warmed IV fluids, warm packs)

 Limit defibrillation attempts to 3

Confirmation of body temperature 86-93 degrees F, warm packs to neck, armpits, and groin

Body temperature >93 degrees, warm with blankets, warm environment, etc.

Paramedic & Paramedic/RN Provider Providers

ADULT

PEDIATRIC

Cold emergencies withhold antiarrhythmics until temperature >86 degrees F

Same as Adult

**Altered Mental Status
Hypoglycemia - Diabetic Emergency**

Community First Responders

Do NOT administer any medications.

ALL DSHS Credentialed Providers

- Blood glucose assessment (heel stick is preferred in newborns or infants)
- Hypoglycemic patient with altered mentation and **insulin pump in place**
 - Care is directed at treating hypoglycemia first, then stopping administration of insulin
 - Turn off insulin pump, if able
 - If no one familiar with the device is available to assist, disconnect pump from patient by:
 - Using quick-release where tubing enters dressing on patient's skin OR completely removing the dressing, thereby removing the subcutaneous needle and catheter from under patient's skin

EMT-Basic Providers

ADULT	PEDIATRIC
15 g oral glucose q 5 mins PRN	7.5 g oral glucose q 5 mins PRN
Glucagon 2 mg IN (1 mg/nostril); repeat 1 time p 15-25 mins	Glucagon 0.2 mg/kg IN (divide dose between each nostril) to a max dose of 2 mg; repeat 1 time p 15-25 mins

EMT-Intermediate Providers

ADULT	PEDIATRIC
Glucagon 2 mg IV or IM (if IN is not indicated); repeat 1 time after 15-25 mins	Glucagon 0.2 mg/kg IV or IM (if IN is not indicated) to a max dose of 2 mg; repeat 1 time after 15-25 mins
Dextrose 50% 12.5-25 grams IV PRN IV Dextrose 50% should be administered via an 18g catheter when possible IO admin of Dextrose 50% is acceptable if appropriate IV access is not available	Newborn up to 3 kg <ul style="list-style-type: none"> • Dextrose 10% 2 mL/kg IV • To mix: add 40 mL NS to 10 mL Dextrose 50% □ Infants and children (>3 kg to 34 kg) <ul style="list-style-type: none"> • Dextrose 25% 2 mL/kg IV • To Mix: add 25 mL NS to 25 mL of Dextrose 50%

Knowledge Points / Considerations

- Clinical presentation of signs and symptoms of hypoglycemia, with or without history, merit the use of glucose in the absence of other indicators. This is to include a reading on the glucometer that would otherwise be considered in the normal range.
- Blood Glucose Level <60 mg/dL (or <40 mg/dL for neonates) with signs and symptoms should be treated with medications regardless of other underlying conditions, including presentation consistent with TBI/CVA

Performance Guidelines / Compliance Elements

Documentation Points:

- Initial BGL for patient and subsequent BGLs
- History of diabetic medication administration
- Neurological assessment
- For refusals: documentation of care plan, including witness instructions, as given to patient.

Compliance Elements:

- Dosing of medications and sequencing of events
- Appropriate transport decision

**Altered Mental Status
Hyperglycemia - Diabetic Emergency**

Community First Responders

Do NOT administer any medications.

ALL DSHS Credentialed Providers

- Blood glucose assessment (heel stick is preferred in newborns or infants)
- Blood Glucose Level <300 mg/dl with any degree of signs and symptoms.

EMT-Intermediate Providers

ADULT

PEDIATRIC

Normal Saline 1000 mL IV over 30-60 mins with signs of hypoperfusion

Normal Saline 20 mL/kg IV over 30-60 mins with signs of hypoperfusion

Knowledge Points / Considerations

- The BGL at which an individual becomes symptomatic is highly variable.
- Clinical presentation of signs and symptoms of hyperglycemia, with or without history, will indicate hypoperfusion. Fluid resuscitation, with other hypoperfusion treatments are warranted, regardless of specific glucometry values.

Performance Guidelines / Compliance Elements

Documentation Points:

- Initial BGL for patient and subsequent BGLs
- History of diabetic medication administration
- Neurological assessment

Compliance Elements:

- Dosing of medications and sequencing of events
- Appropriate transport decision

HYPOTENSION/HYPOPERFUSION (NON-TRAUMATIC)

ECA PROVIDER/ALL PROVIDERS

- Consider assessing for orthostatic changes
- Ensure patient warmth

ADULT

EMT- BASIC PROVIDER

EMT- INTERMEDIATE PROVIDER

- Vascular access and fluid therapy per *Resuscitation and Perfusion Core Principle*

PARAMEDIC & PARAMEDIC/RN PROVIDER

- **Dopamine 5–20 mcg/kg/min** IV / IO infusion for hypoperfusion. Titrated to maintain SBP of >100 mmHg
- **Epinephrine at 2–10 mcg/min** IV infusion titrated to effect for persistent hypotension unresponsive to Dopamine. Infuse at 1-5 mL/min or more and titrate to desired effect.
 - *To mix: 1.0 mg Epinephrine (1:1000) in 500 mL NS*

PEDIATRIC

EMT- BASIC PROVIDER

EMT- INTERMEDIATE PROVIDER

- Same as adult

PARAMEDIC & PARAMEDIC/RN PROVIDER

- **Dopamine 5–20 mcg/kg/min** IV / IO infusion for hypoperfusion. Titrated to maintain SBP of >70 mmHg + 2 X age (years)
 - *To mix: patient's wt (kg) X 6 = amount of drug to be added to 100 mL NS bag.*
 - *This yields 1 mcg/kg/min per mL*
- **Epinephrine 0.1–1 mcg/kg/min** IV infusion titrated to effect for persistent hypotension unresponsive to Dopamine.
 - *To mix: patient's wt (kg) X 0.6 = amount of drug to be added to 100 mL NS bag.*
 - *This yields 0.1 mcg/kg/min per mL*

Nausea / Emesis

Community First Responders

Nothing given by mouth
Upright or lateral recumbent positioning

ALL DSHS Credentialed Providers

Blood glucose assessment

Paramedic & Paramedic/RN Providers

ADULT (> 40kg)

PEDIATRIC (≤40 kg)

Zofran 4mg IV or IM; dose may be repeated x 1 p 10 mins OR Zofran 4 mg IN; dose may be repeated x 1 p 10 mins	Zofran 0.1 mg/kg IV or IM to a max dose of 4.0 mg ; dose may be repeated x 1 after 10 mins
<i>If Allergic to Zofran:</i> Promethazine 12.5 - 25 mg IM titrated to effect if SBP >90 mm Hg	<i>If Allergic to Zofran:</i> Phenergan 0.25-0.5 mg/kg IM to a max dose of 12.5 mg titrated to effect if SBP >70 mmHg + 2 X age (years)

INTRAVENOUS ADMINISTRATION OF PROMETHAZINE (PHENERGAN) IS NOT AUTHORIZED

IV administration of Promethazine (Phenergan) is not to be performed.

Knowledge Points / Considerations

- Fluid resuscitation should be considered as in the Hypovolemia Guideline
- Administration of the medications under this protocol is warranted for any patient with emesis or nausea with the possibility of emesis
- Oxygen, by nasal cannula, may help in reduction of nausea and emesis

Performance Guidelines / Compliance Elements

Documentation Points:

- Level of consciousness
- If Phenergan is used, the rationale for use of Phenergan vs. Zofran

Compliance Elements:

- Accurate time tracking
- Dosing of medications and sequencing of events
- Appropriate transport decision

Transport / Destination Considerations

- Transport to any receiving facility is appropriate

All DSHS Credentialed Providers

History

- Obtain prenatal care history and prior pregnancy, birth, and birth complication history

Normal Delivery

- Attempt to prevent explosive delivery by applying gentle counter pressure as the infant emerges
- As delivery occurs, suction mouth, then nose
- If membrane is still intact as head delivers instruct the mother to stop pushing and gently tear open membrane - immediately suction mouth, then nose
- Keep newborn warm and dry
- Keep newborn at level of vagina until cord is cut
- Once cord pulsations cease, place one clamp 6 inches away from baby, place second clamp 9 inches away from baby, cut cord between the clamps
- In multiple births, do not allow babies to nurse until all have been delivered
- Allow infant to nurse
- APGAR score at 1 minute and again at 5 minutes

Special Situations

Significant hemorrhage following delivery or delayed placenta delivery

- Unless multiple birth is anticipated, begin fundal massage

Nuchal cord

- Attempt to slip cord over the head
- If cord is too tight to remove, immediately clamp in two places and cut between clamps

Prolapsed cord or limb presentation

- With maintaining a pulsatile cord as the objective, two fingers of gloved hand into vagina to raise presenting portion of newborn off the cord.
- If possible, place mother in Trendelenburg position. Otherwise, knee-chest.
- Keep cord moistened with sterile saline.
- Continue to keep pressure off cord throughout transport

Breech presentation

- Position mother with her buttocks at edge of bed, legs flexed
- Support body as it delivers
- As the head passes the pubis, apply gentle upward pressure until the mouth appears over the perineum. Immediately suction mouth, then nose.
- If head does not deliver, but newborn is attempting to breath, place gloved hand into the vagina, palm toward newborn's face, forming a "V" with the index and middle finger on either side of the nose. Push the vaginal wall from the face. Maintain position throughout transport.

Shoulder dystocia

- Position mother with buttocks off the edge of the bed and thighs flexed upward as much as possible.
- Apply firm, open hand pressure above the symphysis pubis
- If delivery does not occur, maintain airway patency as best as possible, immediately transport

Stillborn/abortion

- All products of conception should be carefully collected and transported with the mother to the hospital. Anything other than transport should be coordinated with on-line medical consultation and/or law enforcement.

Paramedic & Paramedic/RN Provider Providers

ADULT	PEDIATRIC
Magnesium Sulfate 50% 4 gms in 100 mL NS wide open for active seizures <i>secondary to presumed eclampsia</i> until seizure stops or 4 gms is reached	See Seizure Protocol
Diazepam 2.5 - 20 mg IV with peripheral pulses present <ul style="list-style-type: none"> • do not exceed 20 mg in any 30 min period 	
For seizures refractory to Magnesium Sulfate & Diazepam - Midazolam 2.5 - 5 mg q 5 mins IN, IV, or IM with peripheral pulses present <ul style="list-style-type: none"> • do not exceed 20 mg in any 60 min period 	
Lactated Ringers 1000 ml IV rapidly infused with no evidence of pulmonary edema. Consider for preterm labor (gestation < 38 weeks) with common signs and symptoms of frequent contractions (every 10 minutes or less), low abdominal cramping, sensation of pelvic pressure, lower backache, diarrhea, and rupture of membranes.	
In the event of uterine inversion, make one attempt to put the uterus back into place. Using the palm of the hand, push the fundus of the inverted uterus toward the vagina. If unsuccessful, cover uterus with moistened sterile gauze.	

OBSTRUCTIVE AIRWAY DISEASE

ECA PROVIDER/ALL PROVIDERS

- Scene and patient management per Core Principles
- Focused history and physical exam:
 - Determine whether the patient has sensitivity to peanuts and/or soy
- Develop and implement treatment plan based on assessment findings, resources, and training

ADULT

EMT- BASIC PROVIDER

- Assist with administration of prescribed metered dose inhaler or nebulized medication per dosing instructions if responder nebulized medication is unavailable. If MDI dosing instructions are not available, give second dose at 20 minutes if needed.
- **Albuterol 2.5-7.5 mg** via nebulization for bronchospasm/wheezing until symptoms subside.
- **Ipratropium Bromide 0.5 mg** mixed with Albuterol nebulized for bronchospasm/wheezing.

EMT- INTERMEDIATE PROVIDER

- Advanced airway, vascular access and fluid therapy per *Resuscitation and Perfusion Core Principle*

PARAMEDIC & PARAMEDIC/RN PROVIDER

- Continuous ECG and ETCO₂ monitoring
- **Methylprednisolone 62.5–125 mg** IV over 1 minute for bronchospasm

PEDIATRIC

EMT- BASIC PROVIDER

- Assist with administration of prescribed metered dose inhaler or nebulized medication per dosing instructions if responder nebulized medication is unavailable. If MDI dosing instructions are not available, give second dose at 20 minutes if needed.
- **Albuterol 2.5-7.5 mg** via nebulization for bronchospasm/wheezing until symptoms subside.
- **Ipratropium Bromide** mixed with Albuterol nebulized for bronchospasm/wheezing.
 - Patient >10 kg - 0.5 mg
 - Patient <10 kg 0.25 mg (1/2 unit dose)

EMT- INTERMEDIATE PROVIDER

- Advanced airway, vascular access and fluid therapy per *Resuscitation and Perfusion Core Principle*
- **Ipratropium Bromide** mixed with Albuterol nebulized for bronchospasm/wheezing/.
 - Patient >10 kg - 0.5 mg
 - Patient <10 kg 0.25 mg (1/2 unit dose)

PARAMEDIC & PARAMEDIC/RN PROVIDER

- Continuous ECG and ETCO₂ monitoring
- Epinephrine (1:1000) 0.25 mg/kg with inhalable saline via nebulization for significant croup. Maximum of 5 mg.
- **Methylprednisolone 2 mg/kg** IV over 1 minute for bronchospasm, up to a maximum dose of 125 mg

Respiratory Depression / Overdose

EMT-Intermediate Providers

ADULT	PEDIATRIC
<ul style="list-style-type: none"> Naloxone 0.4-2 mg IV or IN for suspected narcotic overdose with respiratory depression. (Titrates to improved respiratory status) <ul style="list-style-type: none"> Naloxone 0.8 mg IM for suspected narcotic overdose when venous or intranasal access is unavailable Diphenhydramine 25-50 mg IV for patient with evidence of dystonic reaction <ul style="list-style-type: none"> Diphenhydramine 25-50 mg IM for patient with evidence of a dystonic reaction when vascular access is unavailable 	<ul style="list-style-type: none"> Naloxone 0.1 mg/kg IV, IN, or IM for suspected narcotic overdose. Titrates to improved respiratory status. Diphenhydramine 0.5 mg/kg - 1 mg/kg (max of 50 mg) IV or IM for patient with evidence of dystonic reaction

Paramedic & Paramedic/RN Providers

ADULT	PEDIATRIC
<ul style="list-style-type: none"> Sodium bicarbonate 1 mEq/kg slow IV push for tricyclic antidepressant overdose with sustained HR >120 bpm, QRS >0.10, hypotension unresponsive to fluids, or ventricular dysrhythmias Calcium Chloride 10% 1-2 grams IV over 5 minutes for calcium channel blocker or beta blocker overdose refractory to standard treatment for bradycardia and hypotension. May repeat dose in 10 minutes Diazepam 2.5 - 10 mg IV or IM for significant unrelieved hypersympathetic state from amphetamine, cocaine or PCP use with SBP >90 mmHg. Repeat 1 time <ul style="list-style-type: none"> do not exceed 10 mg in any 30 min period 	<ul style="list-style-type: none"> Sodium bicarbonate 1 mEq/kg slow IV push for tricyclic antidepressant overdose with sustained HR >120 bpm, QRS >0.10, hypotension unresponsive to fluids, or ventricular dysrhythmias Calcium Chloride 10% 20 mg/kg IV over 5 minutes up to 2 grams for calcium channel blocker or beta blocker overdose refractory to standard treatment for bradycardia Diazepam 0.1-0.3 mg/kg IV or IM for significant unrelieved hypersympathetic state from amphetamine, cocaine or PCP use with SBP >70 mmHg + 2 X age (years) <ul style="list-style-type: none"> Max dose for 0-5 yrs: 4 mg Max dose for >5 yrs: 8 mg Do not exceed max dose in any 30 min period

Knowledge Points / Considerations

- These medications are to be used for the indicated reasons above. Use of medications in this protocol are not to be used as diagnostic tools.

Performance Guidelines / Compliance Elements

Documentation Points:

- Neurological assessment including serial GCS

Compliance Elements:

- Serial assessment to include:
 - ETCO₂
 - Level of Consciousness and GCS

Transport / Destination Considerations

- Transport to any receiving facility is appropriate

Pain and Anxiety Management Protocol

ALL DSHS Credentialed Providers

All responders shall make every effort to reduce discomfort and pain as if it is physical / physiologic in nature. Providers shall not withhold any approved treatment under this protocol unless contraindicated for the specific intervention.

- The decision to withhold treatment under this protocol should not be made solely off the presence of ETOH / intoxicating substances and/or prior history of medication usage and questionable abuse.

Paramedic & Paramedic/RN Providers

ADULT	PEDIATRIC
Fentanyl 0.5-2 mcg/kg IV or IN without evidence of hypoperfusion. Max total dose 400 mcg or Morphine Sulfate 2-20 mg (10 mg max single dose) IV or IM q 15 mins if SBP >90mmHg <ul style="list-style-type: none"> • do not exceed 20 mg in any 60 min period 	Fentanyl 0.5-2 mcg/kg IV or IN without evidence of hypoperfusion. Max total dose 200 mcg or Morphine Sulfate 0.1 mg/kg (up to 5 mg increments) IV or IM to a max dose of 10 mg q 15 mins with SBP >70 mmHg + 2 X age (years) <ul style="list-style-type: none"> • do not exceed 20 mg in any 60 min period
Midazolam 2.5 - 5 mg q 5 mins IV, IM or IN with peripheral pulses present for anxiety <ul style="list-style-type: none"> • do not exceed 20 mg in any 60 min period 	Midazolam 0.02 mg/kg IN or Midazolam 0.02-0.05 mg/kg IV or IM with peripheral pulses present <ul style="list-style-type: none"> • do not exceed 0.4 mg/kg in any 60 min period
Diazepam 2.5 - 10 mg IV or IM for muscle spasms / tremors with SBP >90 mmHg. <ul style="list-style-type: none"> • do not exceed 10 mg in any 30 min period 	Diazepam 0.1-0.3 mg/kg IV for severe muscle spasms with SBP >70 mmHg + 2 X age (years) <ul style="list-style-type: none"> • Max dose for 0-5 yrs: 4 mg • Max dose for >5 yrs: 8 mg • Do not exceed max dose in any 30 min period
Lidocaine 1 mg/kg for pain associated with intraosseous administration of medications <ul style="list-style-type: none"> • administer prior to IV bolus of fluids or medications • max dose of 40 mg 	Lidocaine 0.5 mg/kg for pain associated with intraosseous administration of medications <ul style="list-style-type: none"> • administer prior to IV bolus of fluids or medications • max dose of 40 mg

Knowledge Points / Considerations

- Pain management should be initiated as quickly as possible to minimize the pain during splinting, bandaging, and subsequent packaging / movement of the patient
- Time should be allowed (when appropriate) prior to splinting, bandaging, packaging / movement of the patient to allow pharmacological treatments to decrease pain and anxiety
- Patients given pharmacological interventions should not be ambulated unless absolutely necessary
- Use of other clinical indications for pain such as increasing heart rate, increasing respiratory rate, increasing blood pressure, changes in agitation, etc., should be considered. These tools, however, have been shown to be unreliable in accurately determining the trigger points for additional pain management.

Performance Guidelines / Compliance Elements

Documentation Points:

- Neurological assessment including serial GCS
- Pain levels by consistent descriptive terms or, preferably, evaluated on a 1-10 scale

Compliance Elements:

- Serial assessment to include:
 - ETCO₂
 - Level of Consciousness and GCS
 - Patient Pain Level

Transport / Destination Considerations

- Transport to any receiving facility is appropriate