



**Ingestions & Overdoses**

Approval: Troy M. Falck, MD – Medical Director

Effective: 12/01/2022

Approval: John Poland – Executive Director

Next Review: 09/2025

**Guidelines for EMS use of Activated Charcoal**

**BASE/MODIFIED BASE HOSPITAL PHYSICIAN ORDER ONLY**

- Activated charcoal is an agent used for gastric decontamination following overdose ingestion. Clinical research only supports its use when given early after ingestion. While activated charcoal may be helpful when given rapidly after an overdose, it is very important to avoid administration in cases where potential contraindications exist.

**Activated Charcoal Indications**

- Early administration - usually within 1 hour of ingestion (agent still in stomach)
- Potentially deadly agent
- No effective antidote
- No contraindications
- Suggested agents where EMS administration of activated charcoal is appropriate:
  - Antidepressants - Anticonvulsants - Digoxin
  - Calcium channel blockers - Beta blockers

**Activated Charcoal Contraindications**

- Obtunded/altered level of consciousness
- Known caustic ingestion (acid or alkali)
- Known hydrocarbon ingestion
- Suspected GI obstruction (vomiting)
- Agents not well absorbed by activated charcoal (relative contraindication), examples include:
  - Lithium
  - Iron
  - Toxic alcohol

**BLS**

- O<sub>2</sub> at appropriate flow rate, manage airway and assist ventilations as necessary
- Assess V/S including SpO<sub>2</sub>
- Identify substance and time of ingestion: bring sample in original container if safe/possible
- Check blood glucose (BG) if able

**BG ≤60 mg/dl or hx & clinical picture fits hypoglycemia?**

**Oral glucose (BLS)**

- 15 - 25 gm
- OR**
- Dextrose 10% (LALS)**
- 10 - 25 gm (100 - 250 mL) IV/IO
- OR**
- Glucagon (LALS)**
- 1 mg (1 unit) IM/IN

NO

**LALS**

- Cardiac monitor (**AEMT II**)
- Establish vascular access at appropriate time (may bolus up to 1000 mL NS)
- Refer to page 2 for ingestion/overdose agent specific therapy

**Consider activated charcoal – BASE/MODIFIED BASE HOSPITAL PHYSICIAN ORDER ONLY**

- 50 gm PO routine dose



**Ingestions & Overdoses**

**Treatment Notes**

- Poison Control telephone number: (800) 876-4766 or (800) 222-1222.
- Refer to S-SV EMS Hazardous Materials Exposure Protocol (E-7 LALS) if pt exposed externally to organophosphate or carbamate.

**Ingestion/Overdose Agent Specific Therapy**

**Beta Blockers**

May admin. up to 1000 mL NS bolus if SBP <90



**Atropine 1 mg IV (AEMT II)**

- Only if HR <50 and SBP <90 after NS bolus
- May repeat every 5 mins (max total: 3 mg)



**Glucagon 1 mg (1 unit) IM/IN**

- Only if HR <50 and SBP <90



**Push-Dose Epinephrine (AEMT II)**

- Only if HR <50 and SBP <90
- Eject 1 mL NS from a 10 mL pre-load syringe
- Draw up 1 mL epinephrine 1:10,000 concentration and gently mix
- Admin. 1 mL IV push every 1 - 5 mins
- Titrate to maintain SBP >90

**Narcotics**

**Naloxone**

- Only if RR <12 or respiratory efforts inadequate
- 1 - 2 mg IV/IM/IN
- May repeat every 2 - 3 mins if improvement inadequate
- Do not admin. if advanced airway in place & pt is being adequately ventilated

**Organophosphate Or Carbamate**

**Atropine 2 mg IV (AEMT II)**

- Only if HR <60
- May repeat every 3 mins – no max dose

**Tricyclic Antidepressants**

**Sodium Bicarbonate 1 mEq/kg IV (AEMT II) - if any of the following present:**

- SBP <90
- QRS >0.12 seconds (3 small boxes)
- Seizures



**General Medical Treatment**

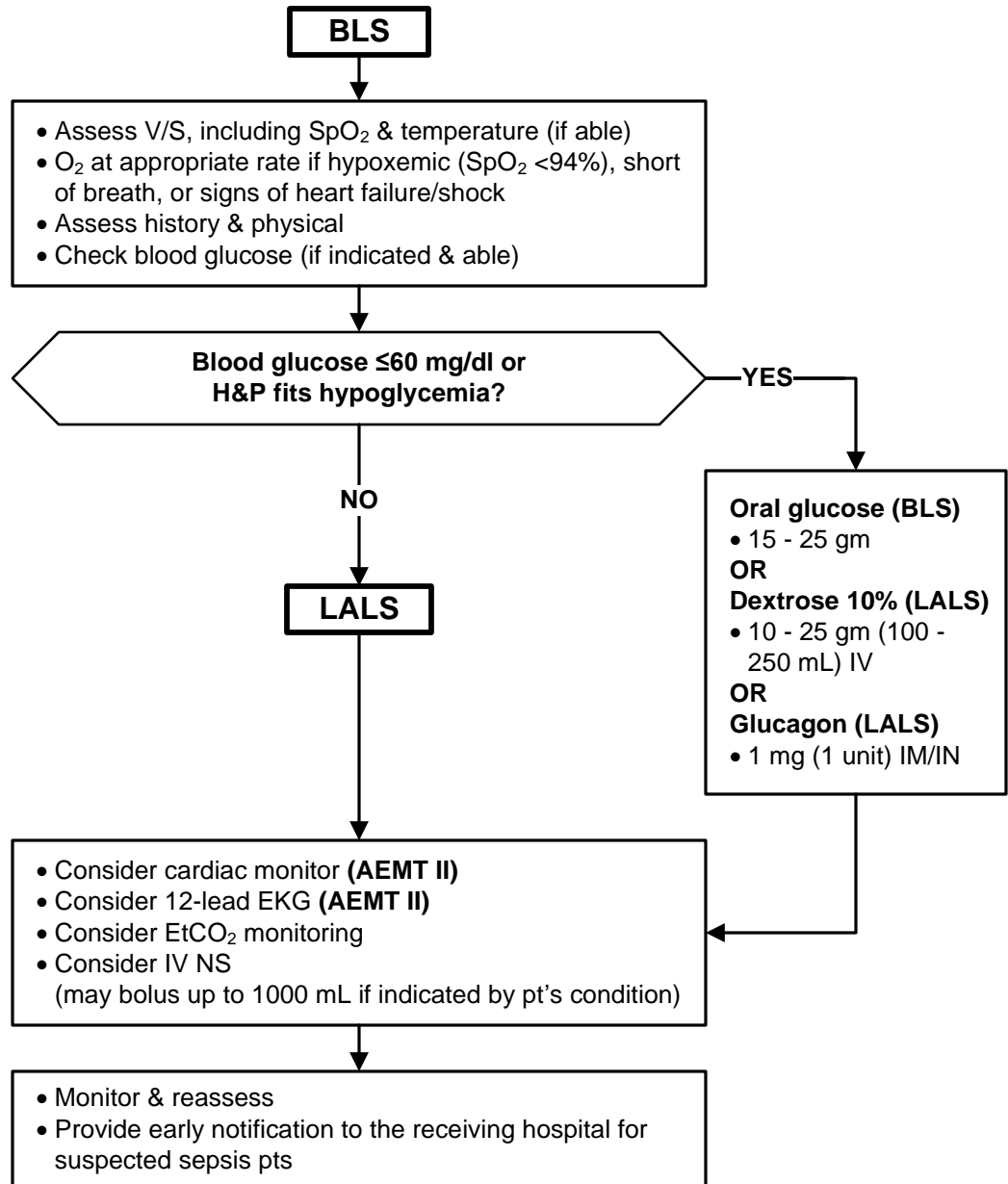
Approval: Troy M. Falck, MD – Medical Director

Effective: 12/01/2022

Approval: John Poland – Executive Director

Next Review: 09/2025

- Consider the following:
  - Trauma - Recent ALOC - Syncope/near syncope - Shock - GI bleed - Abdominal pain
- Consider the possibility of sepsis when a combination (at least two) of the following Systemic Inflammatory Response Syndrome (SIRS) criteria are present in a pt with suspected infection:
  - Temperature >100.4<sup>0</sup> F or <96.8<sup>0</sup> F - RR >20 - HR >90 - EtCO<sub>2</sub> ≤25 mm Hg





**CO Exposure/Poisoning**

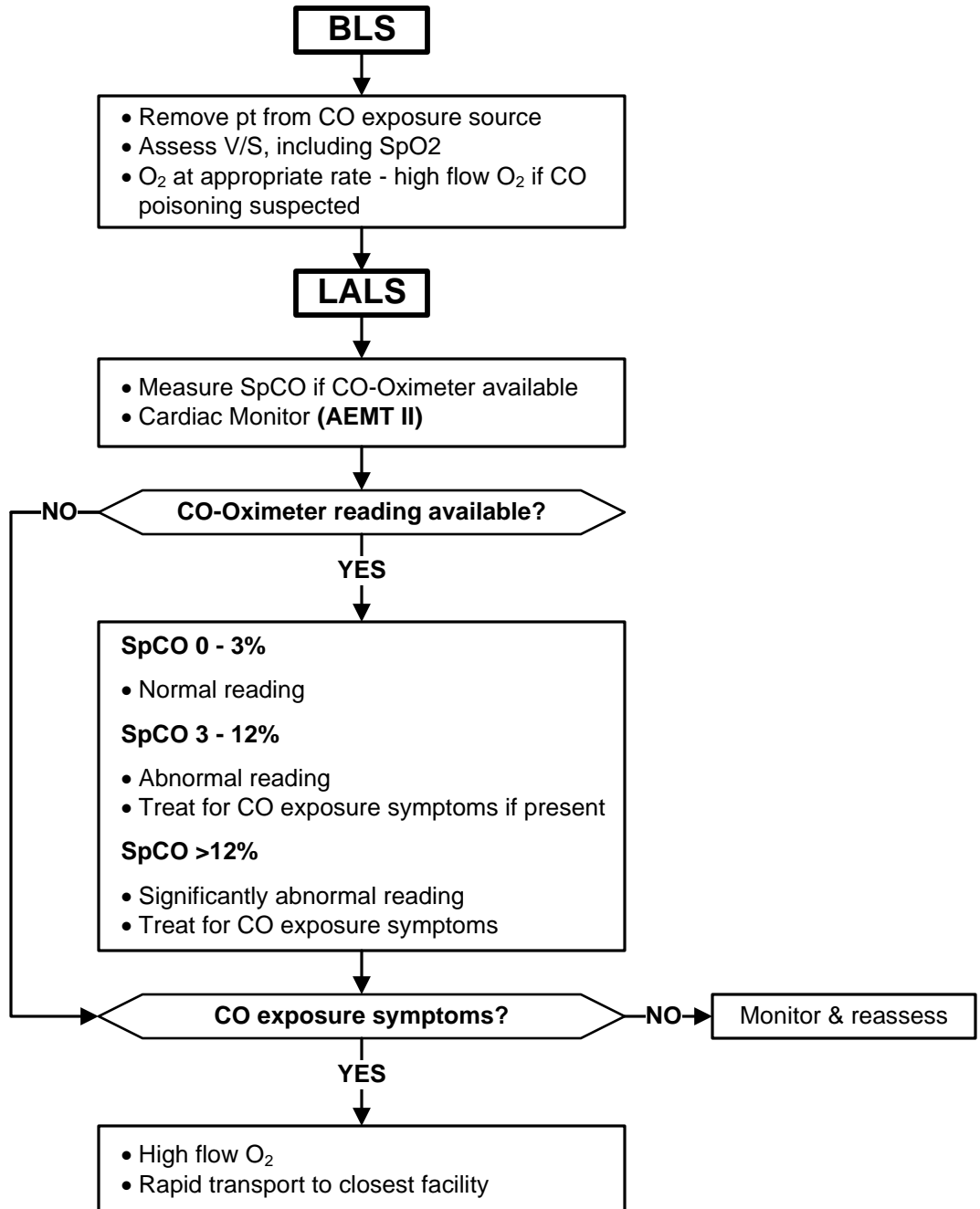
Approval: Troy M. Falck, MD – Medical Director

Effective: 12/01/2022

Approval: John Poland – Executive Director

Next Review: 09/2025

- Initial symptoms of CO exposure are insidious, similar to the flu and thus seemingly benign. These symptoms increase in severity as the SpCO level rises & may include one or more of the following:
  - Confusion
  - Dizziness/vertigo
  - Headache
  - Shortness of breath
  - Nausea/vomiting
  - Fatigue
  - Syncope
  - Confusion
  - Tachycardia
  - Cardiac arrhythmias
  - Seizures
  - Shock
  - Coma
  - Apnea





**Behavioral Emergencies**

Approval: Troy M. Falck, MD – Medical Director

Effective: 12/01/2022

Approval: John Poland – Executive Director

Next Review: 09/2025

**BLS**

- Attempt to de-escalate situation by determining triggering event, attempt calming talk & redirection techniques\* - move pt to safe location & minimize stimulus
- Utilize appropriate restraint mechanisms in situations where the pt is violent, potentially violent, or exhibiting behavior that is dangerous to self or others (Reference: S-SV EMS policy 852)
- Assess V/S, including SpO2 and temperature (if able)
- Assess/treat for underlying medical/traumatic cause of behavioral issues as appropriate
- Check blood glucose (if able)

**Blood glucose  $\leq$ 60 mg/dl or H&P fits hypoglycemia?**

YES

- Oral glucose (BLS)**
- 15 - 25 gm
- OR**
- Dextrose 10% (LALS)**
- 10 - 25 gm (100 - 250 mL) IV
- OR**
- Glucagon (LALS)**
- 1 mg (1 unit) IM/IN

NO

**LALS**

- Consider cardiac monitor (AEMT II)
- Consider IV NS TKO

**\*Redirection Techniques**

- Coach pt in taking slow, deep breaths or have them attempt 'Box Breathing':
  - Breath in for 4 seconds
  - Hold for 4 seconds
  - Exhale for 4 seconds
  - Hold for 4 seconds
- Have pt name 5 things they can see right now
- Give pt a color and ask them to find something around them with that color

**Severe Anxiety**

- Uncontrollable feelings of panic, fear, doom, or impending danger
- Tachypnea/hyperventilation
- Tachycardia
- Cold, sweaty, numb, or tingling hands or feet

**Severe Anxiety symptoms not adequately relieved by other means:**

- Midazolam (AEMT II)**
- 1 - 2 mg IV/IM/IN
  - May repeat dose x 1, after 5 mins, if severe anxiety symptoms persist

**Behavioral Crisis (Including Excited Delirium)**

- Intense paranoia
- Disorientation/hallucinations
- Extreme aggression/violent behavior
- Danger to self/others
- Hyperthermia
- Increased strength

**If pt combative, such that harm to self or others is likely:**

- Midazolam (AEMT II)**
- 10 mg IM/IN
- OR**
- 5 mg IV/IO



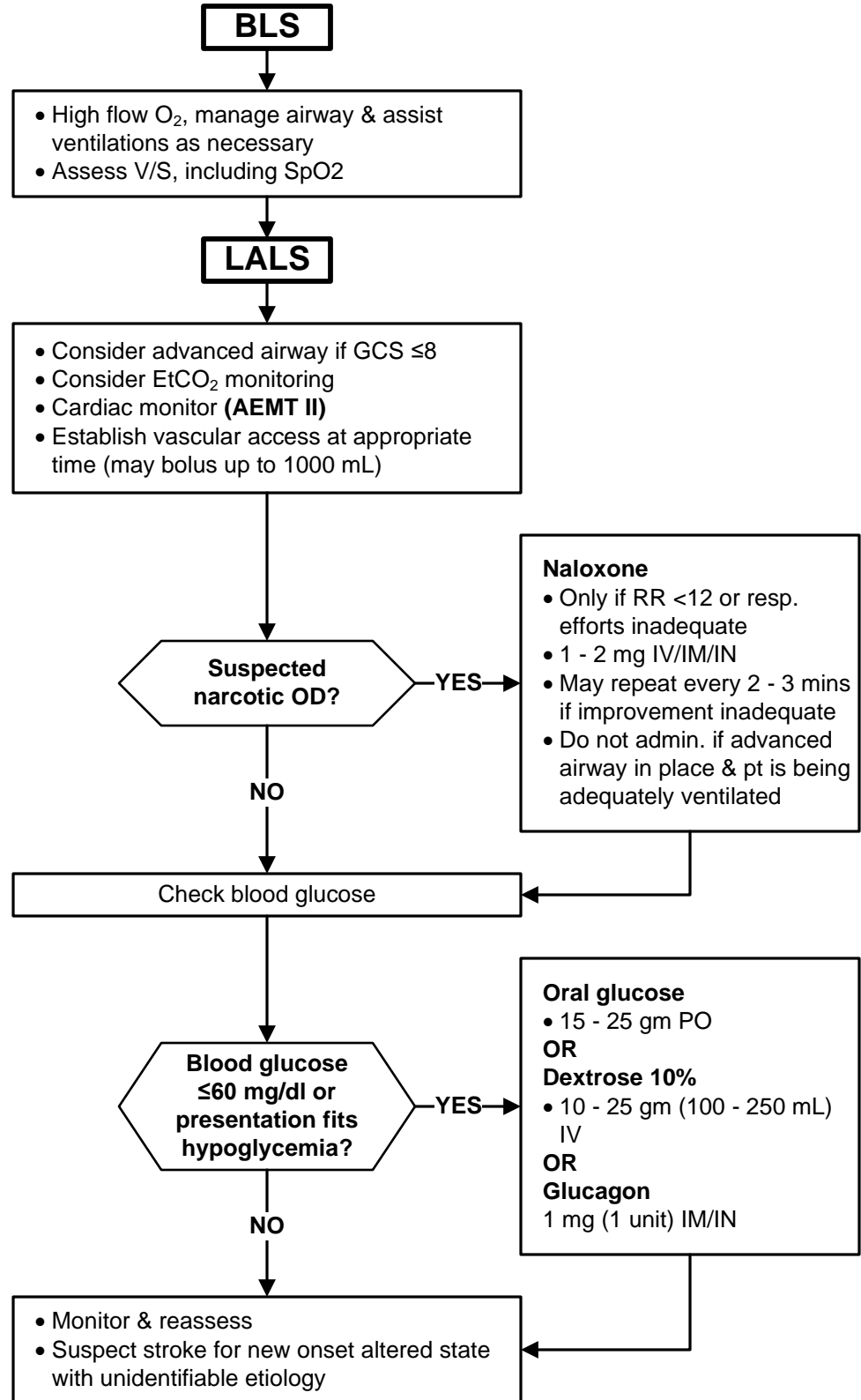
**Altered Level Of Consciousness**

Approval: Troy M. Falck, MD – Medical Director

Effective: 12/01/2022

Approval: John Poland – Executive Director

Next Review: 09/2025





**Seizure**

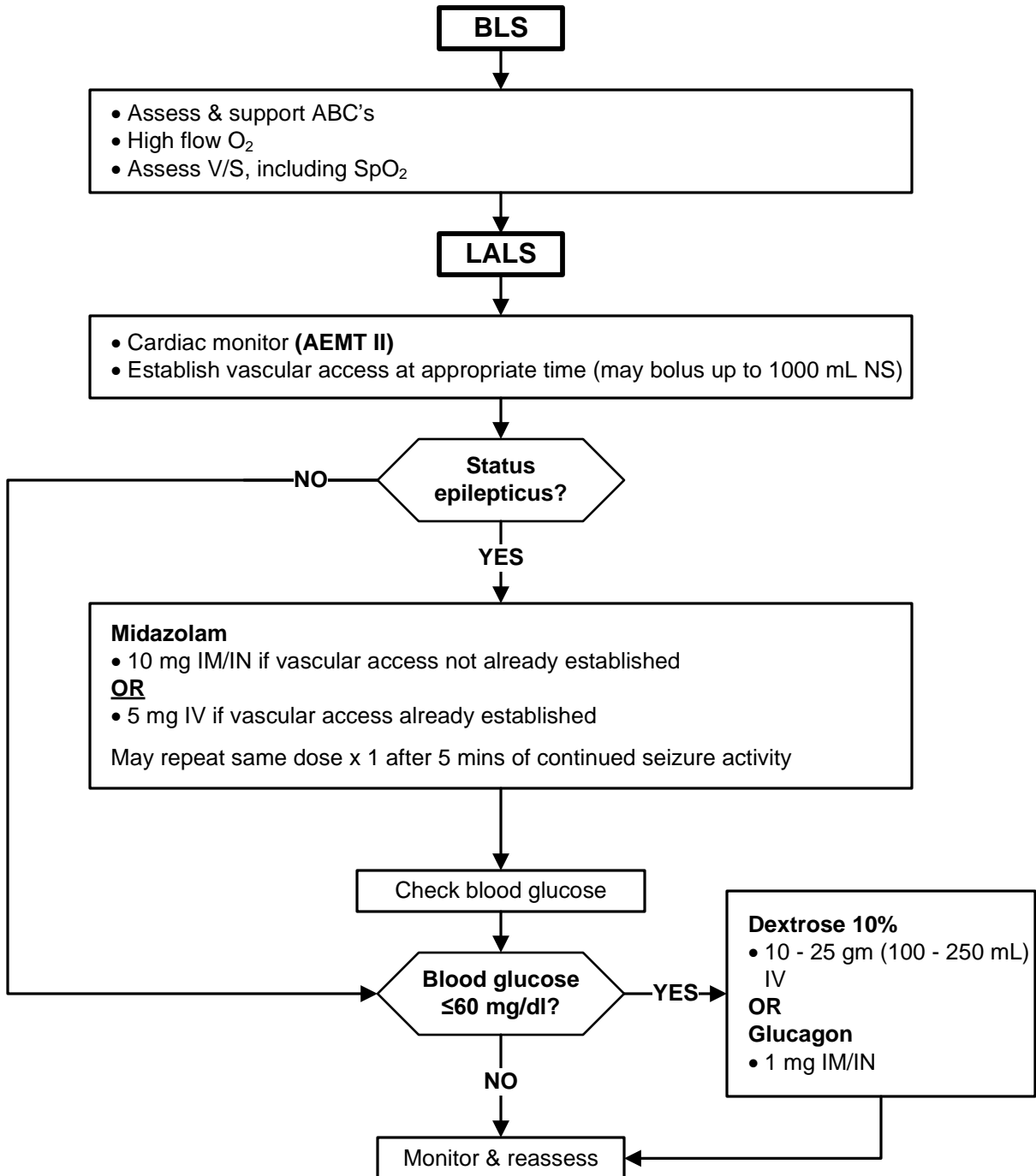
Approval: Troy M. Falck, MD – Medical Director

Effective: 12/01/2022

Approval: John Poland – Executive Director

Next Review: 09/2025

- **Status Epilepticus:** 2 or more seizures without periods of consciousness, or a single seizure lasting >5 mins.
- Transport patients >20 weeks pregnant in left-lateral position.





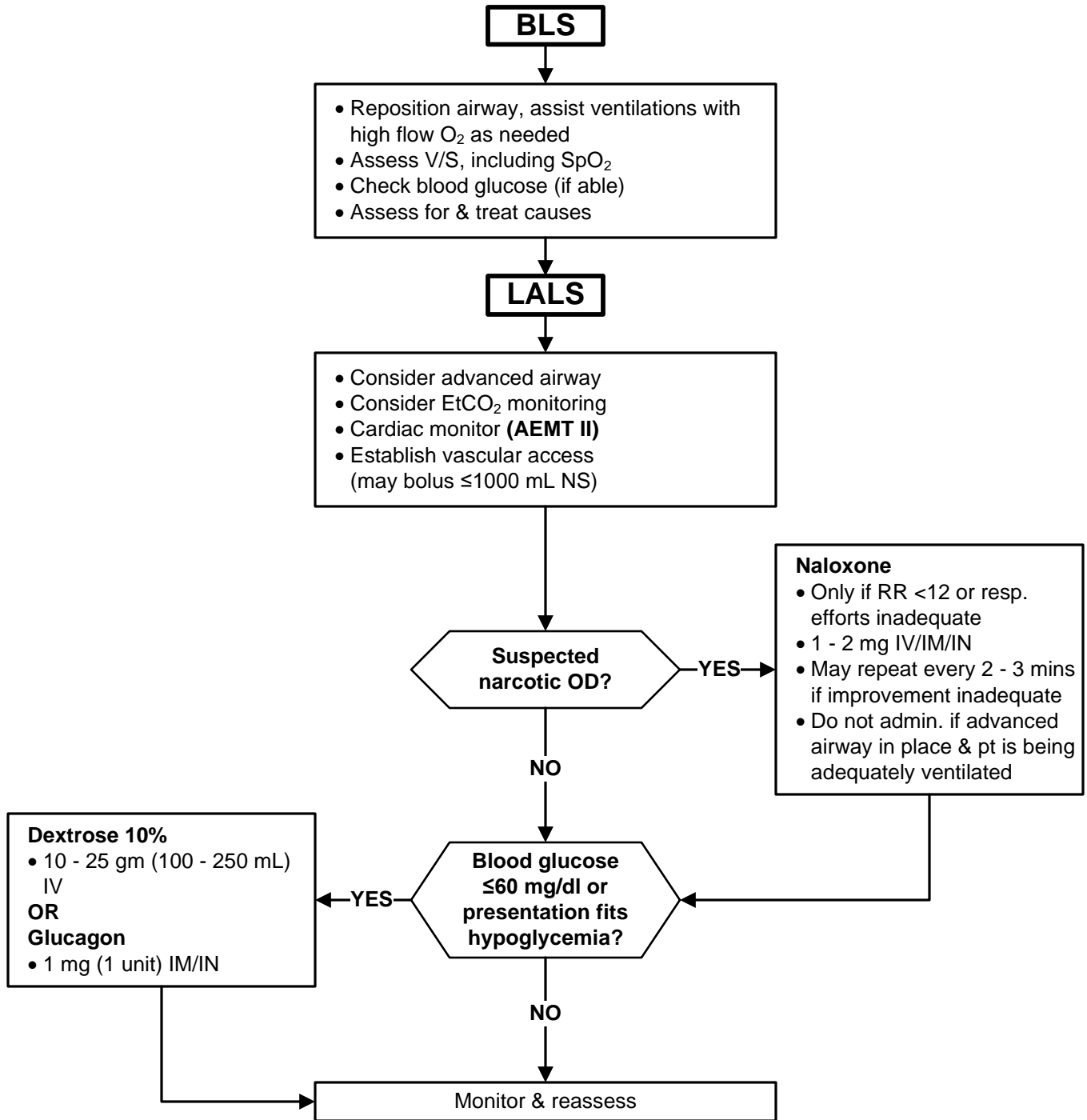
**Respiratory Arrest**

Approval: Troy M. Falck, MD – Medical Director

Effective: 12/01/2022

Approval: John Poland – Executive Director

Next Review: 09/2025







**Hypothermia & Avalanche Resuscitation**

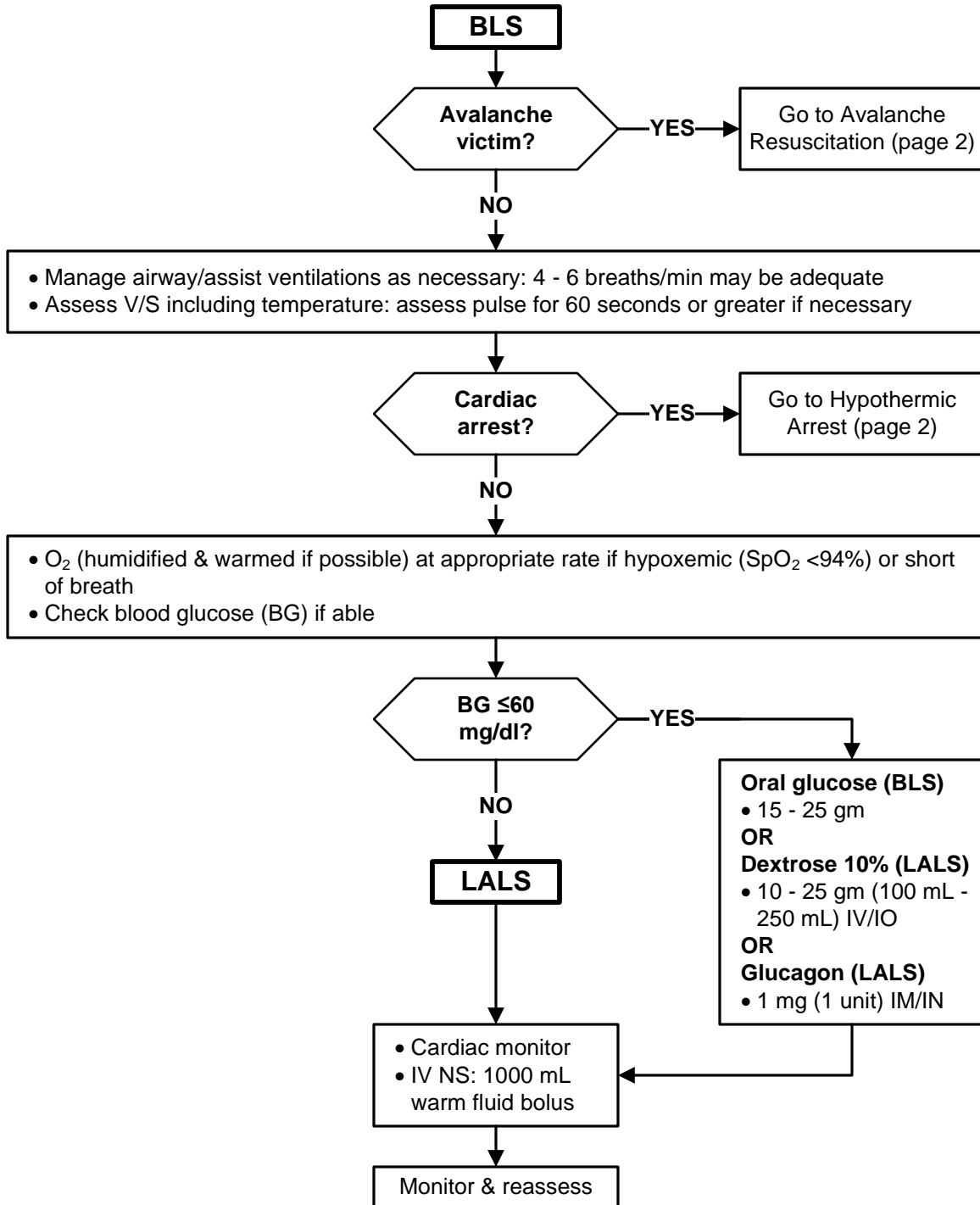
Approval: Troy M. Falck, MD – Medical Director

Effective: 12/01/2022

Approval: John Poland – Executive Director

Next Review: 09/2025

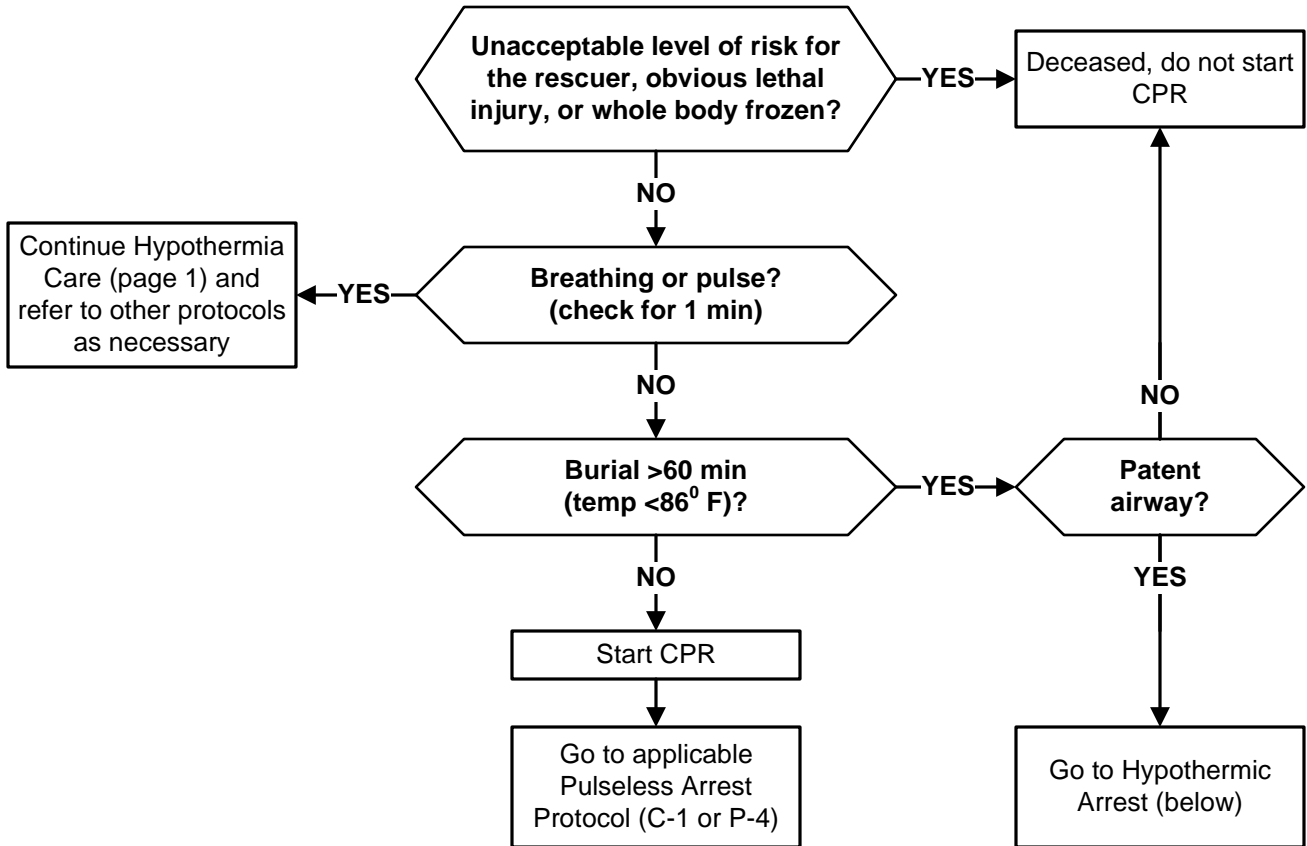
- Move pt to a warm environment, remove wet clothing, begin warming measures as soon as possible.
- Moderately & severely hypothermic pts should be handled as gently as possible.
- This protocol incorporates the official guidelines for the onsite treatment of avalanche victims established by the International Commission for Alpine Rescue (ICAR).





**Hypothermia & Avalanche Resuscitation**

**Avalanche Resuscitation**



**Hypothermic Arrest**

- Medications & defibrillation may be ineffective in a hypothermic cardiac arrest pt. If the pt is in v-fib, one shock & one round of medications should be delivered. It is reasonable to delay further defibrillation attempts & further medications until the pt is rewarmed.
- Continuing CPR & safe expedited transport to the nearest facility is the pt's best chance at survival.

**BLS**

Begin CPR & apply AED as soon as possible, deliver one AED shock if indicated

**LALS**

- If indicated according to Pulseless Arrest protocol (C-1 or P-4), administer one manual defibrillation (**AEMT II**) & one round of ALS medications (**AEMT II**)
- Evacuate/transport as soon as possible - continue CPR until ROSC, rescuer exhaustion, hospital arrival, or base/modified base hospital order to terminate resuscitation efforts