Sierra – Sacramento Valley EMS Agency Treatment Protocol	M-6
General Medical Treatment	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 04/2029

Important Notes

- The purpose of this protocol is to provide assessment & treatment modalities for pt complaints not addressed by other S-SV EMS protocols – including suspected sepsis, suspected abdominal aortic aneurysm (AAA), & nausea/vomiting.

BLS

- Assess V/S, including SpO_2 & temperature (if able)
- O_2 at appropriate rate if pt is hypoxemic (SpO_2 <94%), short of breath, or has signs of heart failure/shock
- Assess history & physical
- Check blood glucose – if indicated & able

Blood glucose ≤60 mg/dl, or hx & clinical presentation fits hypoglycemia

NO

YES

Oral glucose (BLS) – ONLY if pt is conscious & able to swallow
- Pre-packaged glucose solution/gel or 2-3 tbsp of sugar in water/juice

OR

Dextrose 10% (ALS)
- 10 – 25 g (100 – 250 mL) IV/IO

OR

Glucagon (ALS)
- 1 mg (1 unit) IM/IN

ALS

Consider the following additional assessment/treatment modalities, as appropriate, based on pt's condition & clinical presentation:
- Cardiac monitor/12-lead EKG
- $EtCO_2$ monitoring
- IV/IO NS (may bolus up to 1000 mL if indicated)

- Refer to other sections of this protocol as appropriate:
  - Suspected Sepsis – Page 2
  - Suspected AAA – Page 3
  - Nausea/Vomiting – Page 4

Suspected Sepsis

Important Notes

- Early recognition of sepsis is critical to expedite hospital care and antibiotic administration.
- Aggressive IV fluid therapy is the most important prehospital treatment for sepsis.
- Septic pts are especially susceptible to traumatic lung injury and ARDS. If BVM ventilation is necessary, avoid excessive tidal volumes.
- Attempt to identify the source of infection (skin, respiratory, etc.), previous treatment and related history.
- Consider the possibility of sepsis when a combination of two or more of the following Systemic Inflammatory Response Syndrome (SIRS) criteria are present:
  - Temperature <96.8°F or >100.4°
  - RR >20 bpm
  - HR >90 bpm
  - ETCO2 ≤25 mmHg

High-Risk Indicators for Sepsis:

- Hx of pneumonia, UTI, MRSA
- Cancer pts
- Nursing home residents
- Pts with indwelling catheters
- Immune-compromised pts

Shock Index (SI):

- SI is used to assess the severity of hypovolemic shock
- SI = HR/SBP
  - Normal SI range is 0.5 to 0.7
  - HR>SBP (SI>1) may indicate sepsis

ALS

- Assess temperature
- $EtCO_2$ monitoring
- IV/IO NS 500 mL boluses to a maximum of 2 L if SIRS criteria remain present
  - Reassess V/S between boluses
  - Discontinue boluses & provide supportive care if signs of pulmonary edema develop

If SBP <90 after 2 L NS:
Push-Dose Epinephrine

- Eject 1 mL NS from a 10 mL flush syringe
- Draw up 1 mL epinephrine 1:10,000 & gently mix
- Administer 1 mL IV/IO push every 1-5 mins for continued SBP <90

If pt is febrile:
Acetaminophen

- 1 g IV/IO infusion over 15 mins (single dose)

- Monitor & reassess
- Provide early notification to the receiving hospital for suspected sepsis pts

Suspected Dissecting or Ruptured Abdominal Aortic Aneurysm (AAA)

Important Notes

- **Pts at high risk for AAA include**:
  - Men age >65
  - History of smoking
  - History of hypertension
  - Family/pt history of AAA
- **Hallmark symptoms of AAA often include one (1) or more of the following:**
  - Sudden onset of abdominal, flank, back, or groin pain
  - Pain described as “ripping” or “tearing”
  - Pain is typically severe, constant, & progressive
  - Sudden onset of weakness or syncope/near-syncope
  - Nausea &/or vomiting
  - Sense of impending doom/restlessness
- **One (1) or more of the following V/S &/or assessment findings may be present:**
  - Hypotension (late or rapidly developing)
  - Narrowing pulse pressure
  - Tachycardia (caution: pts with history of hypertension may be on beta blockers)
  - Weak or thready peripheral pulses
  - Asymmetric femoral pulses
  - Pulsatile abdominal mass (often absent or difficult to assess)

ALS

- Cardiac monitor/12-lead EKG
- $EtCO_2$ monitoring
- Establish two (2) large-bore IVs/IOs when possible
- Do not aggressively treat hypotension – allow for permissive hypotension
  - Target SBP 80-90 mmHg if pt has palpable pulses & is conscious
  - Administer 250 mL NS boluses only if signs of critical hypoperfusion (including: mental status changes, delayed capillary refill, bilateral absent femoral pulses)
- Prioritize pain management – refer to ‘Pain Management’ protocol (M-8)

- Monitor & reassess
- Provide early notification to the receiving hospital for suspected AAA pts

Nausea/Vomiting

Important Notes

- Nausea/vomiting can be symptoms of a multitude of different causes. If possible, the specific underlying cause should be determined & treated. The use of an antiemetic may relieve symptoms while leaving the cause untreated, & possibly, more difficult to detect. EMS personnel should weigh the benefits of antiemetic use against the possible risk of making an accurate diagnosis more difficult, & the possible side effects of the antiemetic agent.
- Treatment of nausea/vomiting is indicated for pts where it may contribute to a worsening of their medical condition, or where the pt's airway may be endangered.
- EMS personnel may consider administering Zofran (Ondansetron) prophylactically, prior to or immediately after opioid administration, for a pt with a history of nausea/vomiting secondary to opioid administration. Zofran (Ondansetron) may also be administered prior to transport to a pt with a history of motion sickness.

ALS

Zofran (Ondansetron)
- 4 - 8 mg oral disintegrating tablet, **OR** 4 - 8 mg IM, **OR** 4 - 8 mg slow IV/IO (over 30 seconds)
- May repeat as needed (max total dose: 16 mg)

Zofran (Ondansetron) is contraindicated during the first 8 weeks of pregnancy