Sierra – Sacramento Valley EMS Agency Treatment Protocol	M-6
General Medical Treatment	
Approval: Troy M. Falck, MD – Medical Director	Effective: 06/01/2024
Approval: John Poland – Executive Director	Next Review: 01/2027

- The purpose of this protocol is to provide standing order assessment and treatment modalities for pt complaints not addressed by other S-SV EMS treatment protocols – including nausea/vomiting and suspected sepsis.

BLS

- Assess V/S, including SpO_2 & temperature (if able)
- O_2 at appropriate rate if pt 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
  - Nausea/Vomiting – Page 3

Suspected Sepsis

- 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 >20bpm
  - HR >90bpm
  - 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 vital signs between boluses
  - Discontinue boluses and 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

Nausea/Vomiting

- Nausea/vomiting can be symptoms of a multitude of different causes. If possible, the specific underlying cause should be determined and treated. The use of an antiemetic may relieve symptoms while leaving the cause untreated, and 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, and 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.

BLS

Assess/treat underlying cause of nausea/vomiting as appropriate

ALS

Zofran (Ondansetron)

<u>Base/modified base hospital consultation is required prior to administration of Zofran (Ondansetron) to any pt <4 yo or any pt during the first 8 weeks of pregnancy</u>

Adult Pts (≥15 yo)
- 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)

Pediatric Pts (4 - 14 yo)
- 4 mg oral disintegrating tablet, **OR** 4 mg IM, **OR** 4 mg slow IV/IO (over 30 seconds)
- Additional doses require base/modified base hospital consultation