

POLICY: 554.54  
TITLE: Overdose

EFFECTIVE: 09/01/2026  
REVIEW: 8/2028  
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

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**OVERDOSE**

I. AUTHORITY

Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9

II. PURPOSE

To serve as a patient treatment standard for EMRs, EMTs, AEMTs, and Paramedics within their scope of practice.

III. PROTOCOL

**Provider Key: F = First Responder/EMR E = EMT O = EMT Local Optional SOP**  
**P = Paramedic A=Advanced EMT D = Base Hospital Physician Order Required**  
**NOTE: DO NOT INDUCE VOMITING**

|                                                                                                                                                                                                                                                                                                  | F | E | O | A | P | D |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|
| <b>ASSESSMENT:</b> look for serious signs and symptoms related to bradycardia or myocardial depression: systolic BP < 90, coronary type pain/discomfort, respiratory distress, pulmonary congestion, circulatory shock, CNS depression, ALOC. Critical patients are hypotensive and bradycardic. | X | X | X | X | X |   |
| <b>PULSE OXIMETRY:</b> apply and monitor.                                                                                                                                                                                                                                                        |   | X | X | X | X |   |
| <b>CAPNOGRAPHY:</b> apply and monitor.                                                                                                                                                                                                                                                           |   |   |   |   | X |   |
| <b>OXYGEN:</b> if pulse oximetry < 94% or signs of hypoperfusion or respiratory distress.                                                                                                                                                                                                        | X | X | X | X | X |   |
| <b>† ADVANCED BLS AIRWAY:</b> if GCS is < 8 and not rapidly improving, consider SGA.                                                                                                                                                                                                             |   |   | X | X | X |   |
| <b>† ADVANCED ALS AIRWAY:</b> if GCS is < 8 and not rapidly improving, consider ETI.                                                                                                                                                                                                             |   |   |   |   | X |   |
| <b>ECG MONITOR:</b> lead placement may be delegated. Treat as indicated.                                                                                                                                                                                                                         |   |   |   |   | X |   |
| <b>*VASCULAR ACCESS:</b> P - IV/IO, AEMT - IV only, rate as indicated.                                                                                                                                                                                                                           |   |   |   | X | X |   |
| <b>NASOGASTRIC TUBE:</b> suction gastric contents only if patient is intubated and oral ingestion has occurred within 60 minutes.                                                                                                                                                                |   |   |   |   | X |   |
| <b>CONSIDER ACTIVATED CHARCOAL:</b> 1 g/kg po if GCS is 15 or via NG tube if patient is intubated and oral ingestion has occurred within 60 minutes.                                                                                                                                             |   |   |   | X | X |   |
| <b>TEST FOR GLUCOSE</b>                                                                                                                                                                                                                                                                          |   | X | X | X | X |   |
| <b>ORAL GLUCOSE:</b> consider administering oral glucose to patients who are awake and have an intact gag reflex.                                                                                                                                                                                | X | X | X | X | X |   |
| <b>D10:</b> infuse 100 mL IV/IO if blood glucose < 70 mg/dL. Recheck blood glucose 10 minutes post infusion. If blood glucose < 70 mg/dL infuse remaining 150 mL.                                                                                                                                |   |   |   | X | X |   |
| <b>GLUCAGON:</b> If no IV/IO access and unable to tolerate oral glucose, give 1 mg IM if blood glucose < 70mg/dL. Recheck blood glucose 10 minutes post injection. If blood glucose remains < 70 gm/dL, repeat 1 mg IM.                                                                          |   |   |   | X | X |   |

| BETA BLOCKERS                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  | F | E | O | A | P | D |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|---|---|---|---|---|---|
| <b>ATROPINE:</b> 0.5 mg increments slow IVP or 2 mg IM or 4mg ET. Repeat every 3-5 minutes as needed. Maximum total dose of 3 mg.                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |   |   |   |   | X |   |
| <b>TRANSCUTANEOUS CARDIAC PACING:</b> AP pad placement. If patient remains hemodynamically unstable with serious signs & symptoms, DO NOT delay TCP waiting for vascular access or for atropine to take effect.                                                                                                                                                                                     |  |  |  |  |  |  |   |   |   |   | X |   |
| <b>PAIN MANAGEMENT:</b>                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  |  |  |   |   |   |   |   |   |
| <ul style="list-style-type: none"> <li><b>FENTANYL:</b> 1 – 2 mcg/kg IV/IO/IM/IN. If initial dose given IV/IO/IN, may repeat in 5 minutes, or if initial dose given IM may repeat in 10 minutes. Repeat doses at 0.5 mcg/kg. Maximum total 3 mcg/kg.</li> <li><b>MIDAZOLAM:</b> 0.5 – 1 mg increments IV/IO/IM/IN titrated to patient's pain or spasm up to 2 mg. Hold for SBP &lt; 100.</li> </ul> |  |  |  |  |  |  |   |   |   |   | X |   |
| CALCIUM CHANNEL BLOCKER                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  |  |  |   |   |   |   |   |   |
| <b>CALCIUM CHLORIDE:</b> 100 mg IV push over 2 minutes if systolic BP < 90 and HR < 60. Repeat doses of 100-200 mg IV over 2-4 minutes, if hypotension and bradycardia persist.                                                                                                                                                                                                                     |  |  |  |  |  |  |   |   |   |   | X |   |
| <b>ATROPINE:</b> 0.5 mg increments slow IVP or 2 mg IM or 4mg ET. Repeat every 3 - 5 minutes as needed. Maximum total dose of 3 mg.                                                                                                                                                                                                                                                                 |  |  |  |  |  |  |   |   |   |   | X |   |
| TRICYCLIC ANTIDEPRESSANTS                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |  |  |   |   |   |   |   |   |
| <b>SODIUM BICARBONATE</b>                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |  |  |   |   |   |   |   |   |
| <ul style="list-style-type: none"> <li>1 mEq/kg slow IV push for cardiac dysrhythmia or QRS complex wider than 0.10 second. Repeat as indicated until QRS ≤ 0.10 seconds.</li> </ul>                                                                                                                                                                                                                |  |  |  |  |  |  |   |   |   |   | X |   |
| <b>OR</b>                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |  |  |   |   |   |   |   |   |
| <ul style="list-style-type: none"> <li>Infusion: Mix 100 mEq in 1000 mL NS. Start at 150 gtt/min (mL/hr), titrate up for cardiac dysrhythmia or QRS complex wider than 0.10 sec.</li> </ul>                                                                                                                                                                                                         |  |  |  |  |  |  |   |   |   |   |   |   |
| <b>**MIDAZOLAM FOR SEIZURE:</b> Do not delay for IV/IO access. Closely monitor respirations/airway and support ventilation as indicated.                                                                                                                                                                                                                                                            |  |  |  |  |  |  |   |   |   |   |   |   |
| <ul style="list-style-type: none"> <li>IM – 10 mg. May repeat x 1 if seizure continues &gt; 5 minutes.</li> <li>IN – 10 mg. May repeat x 1 if seizure continues &gt; 5 minutes.</li> <li>IV/IO - 1-2 mg every 2 minutes until seizure stops or max 10 mg.</li> </ul>                                                                                                                                |  |  |  |  |  |  |   |   |   |   | X |   |
| OPIOID                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |  |  |   |   |   |   |   |   |
| <b>VENTILATE:</b> With oxygen and BVM if hypoventilation, goal ≥ 94%.                                                                                                                                                                                                                                                                                                                               |  |  |  |  |  |  | X | X | X | X | X |   |
| <b>NALOXONE:</b> one spray pre-packaged IN (typically 2 – 4 mg) for respiratory depression. If opioid overdose is suspected, may repeat every 2-3 minutes in alternating nostrils, to a total of 12 mg. Consider alternate cause of obtundation/respiratory depression if ineffective.                                                                                                              |  |  |  |  |  |  |   | X | X | X | X |   |
| <b>NALOXONE:</b> 0.4-2 mg IN/IV/IO/IM; may repeat every 2–3 minutes to a total of 12 mg. If IN, may repeat every 2-3 minutes in alternating nostrils, to a total of 12 mg.                                                                                                                                                                                                                          |  |  |  |  |  |  |   |   |   | X | X |   |
| ALL HYPOTENSION                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |   |   |   |   |   |   |
| <b>PUSH DOSE EPINEPHRINE:</b> for hypotension – titrate to SBP ≥ 90                                                                                                                                                                                                                                                                                                                                 |  |  |  |  |  |  |   |   |   |   |   |   |
| <ul style="list-style-type: none"> <li>Mix 1 mL of Epi 1:10,000 (0.1 mg/mL) with 9 mL of NS = concentration of 1:100,000 (0.01 mg/mL)</li> <li>Label syringe “epinephrine 10 mcg/mL”</li> <li>0.5 – 1 mL (5 – 10 mcg) IVP every 1 – 5 minutes</li> </ul>                                                                                                                                            |  |  |  |  |  |  |   |   |   |   | X |   |
| If SBP does not stabilize ≥ 90 after two doses, consider epinephrine drip. Refer to 554.88 RX GUIDELINES.                                                                                                                                                                                                                                                                                           |  |  |  |  |  |  |   |   |   |   |   |   |

\*Administer fluid boluses with caution due to the high incidence of pulmonary edema in tricyclic overdose patients.

\*\*Most tricyclic overdose seizures are short in duration and do not require midazolam.

† Maximize naloxone doses prior to attempting advanced airway placement, if narcotic overdose is suspected.