Sierra – Sacramento Valley EMS Agency Treatment Protocol

Ingestions & Overdoses

M-5

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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_2 at appropriate flow rate, manage airway and assist ventilations as necessary
- Assess V/S including SpO2
- 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?

YES →

Oral glucose (BLS)
- 15 - 25 gm

OR

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

OR

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

→ ALS

NO → ALS

ALS

- Cardiac monitor
- 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) if pt exposed externally to organophosphate, carbamate or hydrofluoric acid.
- Oral ingestions of hydrofluoric acid require immediate treatment as it can cause fatal hypocalcemia – early signs of hypocalcemia include:
  - Tingling sensation around mouth, lips, hands or feet
  - Hand or foot spasms
  - QT interval prolongation

Ingestion/Overdose Agent Specific Therapy

Beta Blockers

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

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Atropine 1 mg IV/IO
- Only if HR <50 and SBP <90 after NS bolus
- May repeat every 5 mins (max total: 3 mg)

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Glucagon 1 mg (1 unit) IV/IO
- Only if HR <50 and SBP <90
- If no IV/IO, may admin. 1 mg IM/IN

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Push-Dose Epinephrine
- 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/IO push every 1 - 5 mins
- Titrate to maintain SBP >90

Calcium Channel Blockers

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

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Calcium Chloride 10% 10 mL slow IV/IO
- Only if SBP <90
- Admin. no faster than 1 mL/min
- May repeat every 5 mins (maximum: 4 total doses)

Narcotics

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

Tricyclic Antidepressants

Sodium Bicarbonate 1 mEq/kg IV/IO - if any of the following are present:
- SBP <90
- QRS >0.12 seconds (3 small boxes)
- Seizures

Hydrofluoric Acid

Calcium Chloride 10% 10 mL slow IV/IO
- Only if signs of hypocalcemia
- Admin. no faster than 1 mL/min

Organophosphate Or Carbamate

Atropine 2 mg IV/IO
- Only if HR <60
- May repeat every 3 mins – no max dose