

SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 01/07/13
Supersedes: 01/01/11

Protocol: #P-020

ADULT POISONING AND OVERDOSE

INFORMATION REQUIRED

- Surroundings and safety: check for syringes, containers, flammables, gas cylinders, etc. Note odors in house or surroundings.
- For drug ingestions: note drug(s), dosage(s), number remaining and date of prescription(s) and bring container(s) with patient.
- For other poisoning and exposures: if possible, note identifying information, warning labels or numbers on packaging.
- Duration of illness: onset and progression of present state, antecedent symptoms such as headache, seizures, confusion, etc.
- History of event: ingested substances, drugs, alcohol, toxic exposures, suicidal intention, and the work environment.
- Examine scene for evidence of deliberate inhalation of volatile chemicals ("sniffing" or "huffing").
- Past medical history, psychiatric problems.
- If possible, corroborate information with family member or responsible bystander.

OBJECTIVE FINDINGS

- Breath odor or needle tracks
- Medic alert tags/bracelets/medallions
- Cardiac rhythm
- Blood glucose level
- Pulse oximetry
- Vital signs
- Pupil size
- Skin appearance, color, temperature
- Lung sounds and airway secretions

GENERAL TREATMENT of POISONING or OVERDOSE	
BLS Treatment	ALS Treatment
<ul style="list-style-type: none">• Routine Medical Care.• Assess need for C-Spine precautions.<ul style="list-style-type: none">• Ensure ABC's, oxygenation, ventilation, and suction PRN. Oxygen high flow as needed. if indicated.• Assist ventilations with BVM.• Consider HazMat precautions (see P-016 HAZMAT Protocol).• BLS TREATMENTS ARE THE SAME FOR ALL POISONING / OVERDOSES IN THIS PROTOCOL. THE FOLLOWING TREATMENT BOXES FOR SPECIFIC POISONINGS / OVERDOSES WILL ONLY LIST THE ALS TREATMENTS.	<ul style="list-style-type: none">• Advanced airway if indicated• IV of NS• Activated charcoal 50 grams. See PRECAUTIONS AND COMMENTS• Consider Ondansetron 4 mg IV/IM for nausea/vomiting, may be repeated q 20" to a maximum dose of 12 mg. May give Ondansetron ODT 8 mg dissolved on the tongue if tolerated.

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ANTIPSYCHOTICS WITH EXTRAPYRAMIDAL REACTION

(e.g. Haldol, Haloperidol)

Common signs and symptoms are fixed, deviated gaze to one side of body, painful spasm of trunk or extremity muscles and difficulty speaking.

ALS Treatment

- IV of NS
- **Diphenhydramine** 50 mg IVP or IM (repeat as needed)

NARCOTICS

(e.g. Heroin, Demerol, Methadone, Fentanyl, Dolophine, Darvocet, Darvon, Propoxyphene, Oxycodone, Oxycontin, Oxyir, Percocet)

Common signs and symptoms include symmetrical, pinpoint pupils, respiratory depression, decreased level of consciousness, bradycardia, hypotension and decreased muscle tone.

ALS Treatment

- IV of NS
- **Naloxone** 0.4 intranasal (**IN**) via mucosal atomizer device (**MAD**) (preferred) or IVP or IM for suspected opiate overdose with respiratory depression not responsive to BLS airway interventions. Repeat as needed every 5 minutes for respiratory depression (See PRECAUTIONS and COMMENTS) to total 2 mgs.

TRICYCLIC ANTIDEPRESSANTS

(e.g. Elavil, Amitriptyline, Etrafon, Pamelor, Nortriptyline)

Common signs and symptoms are bradycardia, hypotension and shock.

ALS Treatment

- IV of NS.
- Hyperventilate with 100% oxygen, airway management as needed.
- **Sodium Bicarbonate** 1mEq/kg, IVP, for hypotension, seizure, and/or QRS widening > 0.10 seconds, repeat in 10 minutes with 0.5 mEq/kg PRN to total of 2mEq/kg. Treat seizures according to SEIZURE Protocol (P-022).

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CALCIUM CHANNEL or BETA BLOCKER TOXICITY (e.g. Verapamil or Propranol)
Common signs and symptoms are bradycardia, hypotension and shock.
ALS Treatment
<ul style="list-style-type: none">• IV of NS.• Activated charcoal 50 grams (see PRECAUTIONS AND COMMENTS).
BASE HOSPITAL CONTACT CRITERIA
<ul style="list-style-type: none">• CALCIUM CHANNEL BLOCKER: In the setting of bradycardia and/or hypotension caused by a Calcium Channel Blocker, CaCl 500 mg slow IVP over 5 minutes; may repeat x 1 in 10 min.• BETA BLOCKER: In the setting of bradycardia and/or hypotension caused by a Beta Blocker overdose, Glucagon 1 unit IM.

ORGANOPHOSPHATES (e.g. Malathion)
Common signs and symptoms are “ SLUDGE ”: (Salivation, Lacrimation, Urination, Diaphoresis/diarrhea, Gastric hypermotility, and Emesis/eye [small pupils, blurry vision]).
ALS Treatment
<ul style="list-style-type: none">• IV of NS• Atropine 2-5 mg IVP; repeat q 2-5 min. until SLUDGE symptoms subside.

CARBON MONOXIDE
Consider carbon monoxide (CO) poisoning if patient is found unconscious, or has altered mental status, or has non-specific complaints (fatigue, malaise, nausea/vomiting, headache, “dizziness”) or other non-specific complaints without clear etiology AND patient situation includes:
<ul style="list-style-type: none">• Found down in a closed space with an exposure to a potential source for CO (running motor vehicle, use of charcoal or gas grill indoors, use of generator indoors, heater malfunction, etc).• Multiple persons sharing the vicinity have similar symptoms.• Environmental CO detectors are alarming.
ALS Treatment
<ul style="list-style-type: none">• Oxygen high flow with 100% NRB. Assist ventilations with BVM as needed.• Some inhalational poisonings, such as carbon monoxide and hydrogen sulfide, may result in patients with normal oxygen saturation readings, but cellular hypoxia due to displacement of the oxygen molecule from the hemoglobin in red blood cells. In all of the above cases, maximal oxygen therapy

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should be delivered to the patient regardless of pulse oximeter reading if the patient has signs of respiratory compromise.

UNKNOWN SUBSTANCE

ALS Treatment

- IV of NS
- **Naloxone** 0.4 intranasal (**IN**) via mucosal atomizer device (**MAD**) (preferred) or IVP or IM for suspected opiate overdose with respiratory depression not responsive to BLS airway interventions. Repeat as needed every 5 minutes for respiratory depression (See PRECAUTIONS and COMMENTS) to total 2 mgs.
- **Dextrose 50%** (D₅₀W) 25 grams IVP; if blood glucose < 80 mg/dl or if patient is known diabetic; repeat as needed based on patient response up to a total dose of 50 grams. If you are unable to measure blood glucose level, assume hypoglycemia.
- **Glucagon** 1 mg (or Unit) IM, if unable to establish an IV to administer Dextrose.
- Advanced airway management as indicated.
- If hypotensive, administer fluid bolus of NS 500 ml, reassess and repeat as indicated.
- Consider **Activated charcoal** 50 grams (see PRECAUTIONS AND COMMENTS)
- Continuously monitor vital signs and cardiac rhythm during transport.

DOCUMENTATION

- If extrapyramidal reaction occurs, **Diphenhydramine** given.
- If **Naloxone** given: AMS, respiratory depression documented.

PRECAUTIONS AND COMMENTS

- **Activated charcoal** is not effective for iron, alcohol, lithium and heavy metal overdoses.
- **Activated charcoal** is not recommended for use in TCA overdoses. Patients with TCA overdoses may experience rapid depression of mental status, sudden seizures, or worsening of vital signs.
- **CaCl** will cause severe tissue damage if extravagated; be sure IV is flowing well and is properly secured prior to administration.
- In suspected opiate overdoses, withhold advanced airway management until after the patient has received **Naloxone**.
- Significantly higher doses of **Naloxone** may be needed for treatment of overdoses with synthetic opioid compounds such as Demerol, Fentanyl, etc.
- Consider titrating **Naloxone** to achieve adequate respiratory effort and avoid a withdrawal reaction or combativeness.
- Caustic ingestions are usually caused by alkali (e.g. lye or drain cleaner ~~Drano~~) or acids.
- Hydrocarbons include gasoline, kerosene, turpentine, etc.
- Contact Poison Control if substance is unknown.