

SYMPTOMS: Exposure to toxin, poison, or overdose.

Symptoms will vary according to the route (absorption, ingestion, inhalation, injection), concentration and duration of exposure.

#### IMMEDIATELY

- Don appropriate PPE.
- Remove patient from hazardous environment or request assistance as appropriate.
- Decontaminate patient by carefully removing and isolating clothing (place in plastic bag); or assure decontamination of patient.
- Treat signs and symptoms.
- **Call POISON CONTROL (800) 222-1222.**

#### TREATMENT and INTERVENTIONS

##### ALL LEVELS

1. Ensure the scene is safe.
2. Don appropriate PPE as indicated.
3. Use environmental Carbon Monoxide (CO) detector clipped on "first in" bag if possible.
4. Confirm that patient has removed themselves from hazardous environment or assure removal of patient based on training and equipment.
5. Assess ABCD.
6. Expose patient for assessment as appropriate.
  - a. Check for needle marks, paraphernalia, bites, bottles, or evidence of agent involved in exposure, self-inflicted, injury, or trauma.
  - b. Check for weapon and drugs as indicated. [Law enforcement should have checked; you may decide to re-check.]
  - c. Re-cover the patient to assure retention of body heat.
7. Obtain an accurate exposure history:
  - a. Time of exposure/ingestion
  - b. Route of exposure
  - c. Quantity of medication or toxin taken.
  - d. Alcohol or another intoxicant taken.
8. Identify specific medication taken including immediate or sustained release, time of ingestion, dose, and quantity.
9. Contact Poison Control [(800) 222-1222] for specifics on appropriate therapy.
10. Obtain and monitor vital signs including temperature; repeat vital signs often.
11. Refer to specific guidelines on following pages of protocol.
12. Consider ALS for administration of potential antidote or mitigating medication. [Specific agent overdose guidelines begin middle of next page.]
13. Collect all possible medications if appropriate and safe to do so.

##### ALL LEVELS-O

14. Perform carboxyhemoglobin device (CO finger probe) assessment. [Carboxyhemoglobin is the compound found in the blood by the binding of CO to hemoglobin. It is stable and cannot transport oxygen.]

##### EMR-O; EMT-R

15. Administer oxygen as appropriate for dyspnea or respiratory distress with a target of achieving greater than 93% saturation for most acutely ill patients.
16. Check blood glucose level.

17. Monitor SpO<sub>2</sub>.
18. Monitor ETCO<sub>2</sub> for respiratory decompensation.
19. Attach ECG cardiac monitor.
20. Notify destination facility of exposure and possible contamination.

AEMT-R

21. Initiate IV access for infusion treatment medication.
22. Consider isotonic IV/IO fluid bolus 20ml/kg (normal saline) if evidence of hypoperfusion.

AEMT-O

23. Consider lactated Ringer's as appropriate.

INT-R

24. Examine ECG rhythms for arrhythmias; consider 12-lead ECG.

## SPECIFIC AGENT OVERDOSE GUIDELINES

### 1. ACETAMINOPHEN

- a. Do not administer oral agents if there is a risk of rapidly decreasing mental status.

EMT-O

- b. Consider administration of activated charcoal without sorbitol [1 g/kg PO] if within the first hour of ingestion and prolonged transport time to definitive care.

### 2. ASPIRIN

- a. Avoid manual ventilation.
  - Let the patient breathe on their own, even if tachypneic, until there is evidence of decompensation or dropping oxygen saturation.
  - Acid or base disturbances and outcomes worsen when the patient is manually ventilated.

EMT-O

- b. Consider administration of activated charcoal without sorbitol [1gm/kg PO].
  - Administer charcoal early (highly recommended) as aspirin is erratically absorbed.
  - Do not administer oral agents including activated charcoal if altered mental status or risk of rapid decreasing mental status from polypharmacy.

### 3. BENZODIAZEPINE

- a. Provide respiratory support.

AEMT-R

- b. Consider isotonic IV/IO fluid bolus 20/ml/kg.

AEMT-O

- c. Consider lactated Ringer's as appropriate.

INT-R

- d. Consider vasopressors after adequate fluid resuscitation (1-2 liters of crystalloid) for hypotensive patient.

### 4. CAUSTIC SUBSTANCE INGESTION

- a. Evaluate for airway compromise secondary to spasm or direct injury associated with oropharyngeal burns.
- b. In the few minutes immediately after ingestion, consider administration of water or milk if available.
  - i. Adults: maximum 240mL (8 ounces)
  - ii. Pediatrics: maximum 120mL (4 ounces)

- iii. Do not attempt dilution in patients with respiratory distress, altered mental status, severe abdominal pain, nausea or vomiting, or patients who are unable to swallow or protect their airway.
- iv. Do not force fluids in anyone who refuses to drink.

5. DYSTONIA (symptomatic)

- a. Symptoms include involuntary muscle contractions, extra pyramidal signs or symptoms (movement dysfunction/muscle control problems) or mild allergic reactions.

PARA-O

- b. Consider administration of diphenhydramine [1mg/kg IM/IV/PO; maximum dose 25 mg].

6. MONOAMINE OXIDASE INHIBITOR

- a. Trade names include: MAOI, isocarboxazid (Marplan<sup>®</sup>), phenelzine (Nardil<sup>®</sup>), selegiline (Emsam<sup>®</sup>), tranylcypromine (Parnate<sup>®</sup>)

INT-O; PARA-O

- b. Consider administration of midazolam (benzodiazepine of choice) for temperature control. [Adult: 4mg IV/IO/IN or 10mg IM; Pediatric: 0.1mg/kg IV/IO/IN or 0.25mg/kg IM.]

7. OPIOID – Treat per [Opioid Poisoning/Overdose guidelines \[ED-3\]](#).

8. UNKNOWN POISONING – ORAL INGESTION

- a. Do not administer oral agents if there is a risk of rapidly decreasing mental status or for petroleum-based ingestion

EMT-O

- b. Consider administration of activated charcoal without sorbitol [1 g/kg PO] particularly if it is within the first hour after ingestion (including acetaminophen) or prolonged transport to definitive care.
- c. Administer activated charcoal [1 g/kg PO] to patients who have ingested medication with extended release or delayed absorption.

9. SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs)

- a. Consider early airway management.
- b. Treat seizures per Seizure guideline.
- c. Aggressively control hyperthermia with cooling measures.

AEMT-R

- d. Consider isotonic IV/IO fluid bolus 20ml/kg normal saline

AEMT-O

- e. Consider administration of lactated Ringer's as appropriate

INT-R

- f. Consider vasopressor after adequate fluid resuscitation (1-2 liters of crystalloid) for hypotensive patient. (See [Shock guideline \[M-13\]](#).)

INT-O

- a. Consider midazolam (benzodiazepine of choice) for agitation. [Adult: 4 mg IV/IO/IN or 10 mg IM; Pediatric: 0.1 mg/kg IV/IO/IN or 0.25 mg IM].
- b. Treat seizures per [Seizure guideline \[M-12\]](#).

PARA-R

- a. Treat arrhythmias following ACLS guidelines

## 10. TRICYCLIC ANTIDEPRESSANT (TCA)

- a. Consider early airway management.
- b. Monitor level of consciousness.
- c. Treat seizures per Seizure guidelines.

### AEMT-R

- d. Consider isotonic IV/IO fluid bolus 20 m./kg normal saline or

### AEMT-O

- e. Consider IV/IO of lactated Ringer's.

### INT-R

- f. Consider vasopressor after adequate fluid resuscitation (1-2 liters of crystalloid) for hypotensive patient. (See [Shock guideline \[M-13\].](#))

### INT-O; PARA-O

- g. Consider midazolam (benzodiazepine of choice) for agitation. vasopressors after adequate fluid resuscitation (1-2liters or crystalloid) for the hypotensive patient. (See [Shock guideline \[M-13\].](#))

### PARA-R

- h. Consider sodium bicarbonate if widened QRS (100 msec or greater) [1mEq/kg IV/IO maximum of 50mEq over five minutes.]

## SYMPTOMS related to ROUTES OF EXPOSURE:

Symptoms will vary depending upon the route, concentration, and duration of exposure.

### ABSORPTION

- a. Nausea
- b. Vomiting
- c. Diarrhea
- d. Altered mental status
- e. Rapid heart rate
- f. Dyspnea
- g. Wheezing
- h. Seizures
- i. Arrhythmias
- j. Respiratory depression
- k. Sweating
- l. Tearing
- m. Defecation
- n. Constricted or dilated pupils
- o. Rash
- p. Burns to the skin

### INGESTION

- a. Nausea
- b. Vomiting
- c. Diarrhea
- d. Altered level of consciousness
- e. Abdominal pain
- f. Rapid or slow heart rate
- g. Dyspnea
- h. Seizures
- i. Arrhythmias
- j. Respiratory depression

- k. Chemical burns inside or around the mouth
- l. Abnormal breath odors

#### INHALATION

- a. Nausea
- b. Vomiting
- c. Diarrhea
- d. Altered mental status
- e. Abnormal skin color
- f. Dyspnea
- g. Seizures
- h. Burns to the respiratory tract
- i. Stridor
- j. Sooty sputum
- k. Known exposure to toxic or irritation gas
- l. Respiratory depression
- m. Sweating
- n. Tearing
- o. Constricted or dilated pupils
- p. Dizziness

#### INJECTION

- a. Local pain
- b. Puncture wounds
- c. Reddening skin
- d. Local edema
- e. Numbness
- f. Tingling
- g. Nausea
- h. Vomiting
- i. Diarrhea
- j. Altered mental status
- k. Abdominal pain
- l. Seizures
- m. Muscle twitching
- n. Hypoperfusion
- o. Respiratory depressions
- p. Metallic or rubbery taste

#### POISON CONTROL – (800) 222-1222

The poison control center is a national 24-hour resource that is free, confidential expert advice from anywhere in the United States. Engage them as early as reasonably possible to aid in appropriate therapy and to track patient outcomes to improve knowledge of toxic effects.