

POISONINGS

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POISONINGS

**Greater Cleveland Poison Control Center
Call: 1-800-222-1222**

Poisoning must be suspected in any patients with altered mental status, particularly with bizarre behavior. Poisoning is unlikely if there are focal neurological findings (such as unilateral limb weakness or single dilating pupil).

ORAL POISONINGS (NON ACIDS AND ALKALIS) AND TOXIC INHAILANTS CARBON MONOXIDE POISONING AND ASPIRIN OVERDOSE

1. Maintain airway, breathing and circulation.
2. Pulse Oximetry, high flow oxygen.
3. 12-Lead EKG monitor (if dysrhythmias, begin ACLS protocols).
4. IV Normal Saline TKO rate, blood draws.
5. Glucose check.
6. Transport
7. Monitor ABC's

**MONITOR FOR ASPIRATION DANGERS
PULSE OXIMETRY READING IS INACCURATE IN PATIENTS
WITH CARBON MONOXIDE POISONING**

METHYLALCOHOL POISONING, ACIDS AND ALKALIS POISONING

1. Maintain airway, breathing and circulation.
2. Pulse Oximetry, high flow oxygen.
3. 12-Lead EKG monitor (if dysrhythmias, begin ACLS protocols).
4. IV Normal Saline, 20cc/kg fluid bolus, blood draws.
5. Glucose check.
6. Transport
7. Monitor ABC's.

**MONITOR FOR ASPIRATION DANGERS
PATIENT MAY BECOME VIOLENT
CONSIDER OTHER DANGEROUS SUBSTANCES
DO NOT INDUCE VOMITING**

POISONINGS

PETROLEUM PRODUCT POISONING

1. Maintain airway, breathing and circulation.
2. Pulse Oximetry, high flow oxygen.
3. 12-Lead EKG monitor (if dysrhythmias, begin ACLS protocols).
4. IV Normal Saline TKO rate, blood draws.
5. Glucose check.
6. Administer D50 (Dextrose 50%) IV PUSH (if coma or seizures).
Adults: 25 grams IV PUSH.
Children: 2 cc/kg D25 IV PUSH
In a D50 Amp, remove 25 ccs of D50. Replace with 25 cc NS.
7. Transport
8. Monitor ABC's

DO NOT INDUCE VOMITING

ORGANOPHOSPHATE POISONING

DECONTAMINATE PATIENT IF TOPICAL EXPOSURE

1. Maintain airway, breathing and circulation.
2. Pulse Oximetry, high flow oxygen.
3. 12-Lead EKG monitor (if dysrhythmias, begin ACLS protocols).
4. IV Normal Saline TKO rate, blood draws.
5. Administer 2-5 mg Atropine/15 min assess vital signs/LOC
6. Glucose check.
6. Rapid transport.
7. Monitor ABC's.

Adult and Pediatric patients over age 10 or 40kg.

If the patient was exposed to a nerve agent and has the following symptoms:

1. No symptoms – Decontamination and observation only.
2. Mild symptoms (muscle twitching and diaphoresis), the paramedic may administer one (1) MARK I kit
3. Moderate symptoms (miosis, rhinorrhea, headache, wheezing, GI effects and muscle weakness), the paramedic may administer one (1) to two (2) MARK I kits.
4. The paramedic may repeat atropine 2mg autoinjector IM every
 - i. 5 – 10 minutes until secretions discontinue
5. Severe symptoms (unconscious, seizures, flaccid, apnea), the paramedic may administer three (3) MARK I kits.
6. The paramedic may administer repeat atropine 2mg autoinjector every 5 – 10 minutes until secretions discontinue.
7. The paramedic may administer diazepam 10mg IM autoinjector or 5 – 10 mg IV for any seizure activity related to nerve agent exposure.

MONITOR FOR BRADYCARDIA AND SEIZURES NEVER GIVE MORPHINE OR AMINOPHYLLINE

POISONINGS

NARCOTIC OVERDOSE

1. Maintain airway, breathing and circulation.
DEFER INTUBATION UNTIL NARCAN IF POSSIBLE
2. Pulse Oximetry, high flow oxygen.
3. 12-Lead EKG monitor (if dysrhythmias, begin ACLS protocols).
4. IV Normal Saline TKO rate, blood draws.
5. Glucose check.
6. Administer Narcan (Naloxone)
Adults: 0.5 - 2.0 mg SLOW IV/IO PUSH or IM/nasally.
Children: 0.1 mg/kg IV PUSH or IM/nasally.
May repeat above doses if initially effective, then patient again becomes symptomatic. Typically repeated in 15-30 minutes.
7. Transport
8. Monitor ABC's.

**MONITOR FOR ASPIRATION DANGERS
PATIENT MAY BECOME AGITATED AND COMBATIVE**

BARBITURATE OVERDOSE

1. Maintain airway, breathing and circulation.
2. Pulse Oximetry, high flow oxygen.
3. 12-Lead EKG monitor (if dysrhythmias, begin ACLS protocols).
4. IV Normal Saline TKO rate, blood draws.
5. Glucose check.
6. Transport.
7. Monitor ABC's.

**MONITOR FOR SHOCK
WATCH FOR ASPIRATION DANGERS**

POISONINGS

AMPHETAMINE OVERDOSE

TRY TO TALK DOWN THE PATIENT

1. Maintain airway, breathing and circulation.
2. Pulse Oximetry, high flow oxygen (if tolerated).
3. 12-Lead EKG monitor if tolerated (if dysrhythmias, begin ACLS protocol).
4. Consider sedation
Administer Versed (Midazolam) 2-4 mg IM/intranasal
5. Transport.
6. Glucose check, IV, Blood draw
6. Monitor ABC's.

CAUTION PATIENT MAY BECOME VIOLENT

ENVENOMED SNAKE BITES

1. Maintain airway, breathing and circulation.
2. Pulse Oximetry, high flow oxygen.
3. 12-Lead EKG monitor (if dysrhythmias, begin ACLS protocols).
4. Apply a wide constricting dressings 4-5 inches proximal to the bite. There should be a palpable pulse distal to constricting band. IT IS NOT A TOURNIQUET.
5. Splint bitten extremity.
6. IV Normal Saline TKO rate, blood draws.
7. Rapid Transport.
8. Monitor ABC's.

**NOTIFY HOSPITAL EARLY
REMOVE RINGS AND BRACELETS
MONITOR FOR SHOCK
GIVE NOTHING BY MOUTH**

POISONINGS

SPIDER BITE

1. Maintain airway, breathing and circulation.
2. Pulse Oximetry, high flow oxygen.
3. 12-Lead EKG monitor (if dysrhythmias, begin ACLS protocols).
4. Ice packs to bitten region.
5. IV Normal Saline TKO rate, blood draws.
6. Glucose check.
7. Rapid Transport.
8. Monitor ABC's.

NOTIFY HOSPITAL EARLY

BETA BLOCKER OR CALCIUM CHANNEL BLOCKER OVERDOSE

1. Maintain airway, breathing and circulation.
2. Pulse Oximetry, high flow oxygen.
3. 12-Lead EKG monitor (if dysrhythmias, begin ACLS protocols).
4. Administer Glucagon 2mg IV/IO PUSH (May repeat once for total of 4mg)
*Consideration secondary administration only if HR<60
5. Rapid Transport.
6. Calcium 1g SLOW IVP if Glucagon is unsuccessful
7. Monitor ABC's.

POISONINGS

CYANIDE PROTOCOL

I. Background

1. Cyanide is a cellular toxin; it halts respiration at the cellular level. Cyanide poisoning may be encountered in industrial areas such as electroplating facilities and metal refining facilities. It may be found in photography studios both large scale and private dark rooms. Cyanide may also be found in university laboratory facilities. This may be a common method of suicide attempt in those who have access to the substance, such as laboratory workers and chemists.

II. The Cyanadide Kit (The kit contains the following)

- | | | |
|----|----|--|
| A. | 12 | Amyl Nitrate Inhalant. |
| B. | 2 | 10-ml ampules of 3% Sodium Nitrate solution. |
| C. | 2 | 50 ml vials of 25% Sodium Thiosulfate. |
| D. | 1 | Sterile 10 ml syringe with needle. |
| E. | 1 | Sterile 60 ml syringe. |
| F. | 1 | 20 gauge needle. |
| G. | 1 | Stomach tube. |
| H. | 1 | Non-sterile 60 cc syringe. |
| I. | 1 | tourniquet. |

III. Scene Size-up

1. As with any situation the first priority is personal safety. Scene size up, personal protective equipment and decontamination are necessary.
2. Avoid contact with vomitus.

IV. All Provider Levels

1. Remove the patient to a non-contaminated area.
2. Refer to the Patient Care Protocols.
3. Administer Oxygen at 100% via non-rebreather mask.

V. Advanced Life Support Providers

1. Institute standard ALS measures as indicated.
2. Cyanide Antidote
 - A. Step 1: Amyl Nitrate Inhalant ampules.
 - i. Use Amyl Nitrate Inhalant ampules one at a time.
 - ii. Break the Amyl Nitrate Inhalant into a gauze sponge, handkerchief or stack of 4x4's.
 - iii. Have the patient inhale the fumes by holding the gauze in front of the patients nose and mouth, 15 seconds on 15 seconds off.

Note Well: Known cyanide ingestion (i.e. and unconscious individual near an open cyanide container in an apparent suicide attempt) does not require Medical Control or Medical Director contact for use of the kit. In instances where cyanide poisoning is suspected, contact the medical control hospital, or the medical director for on line medical direction.

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CYANIDE PROTOCOL (continued)

Note Well: This is a temporizing measure until IV access can be obtained. If an IV is already in place, go directly to Letter B - Step 2.

VI. Advanced Life Support Providers (continued)

- iv. If the patient is not breathing, initiate advanced airway management.
- v. The Amyl Nitrate soaked gauze can be placed in the reservoir bag and the patient ventilated either with bag and mask or bag and endotracheal tube (or rescue airway device).
- vi. Obtain IV Access concurrently.

A. Step 2: 3% Sodium Nitrate Solution.

- ii. In an Adult, inject 10 cc of the Sodium Nitrate Solution over 2 to 4 minutes.
- iii. The Sodium nitrate may be diluted into 100 to 150 cc of normal saline and infused over 2 to 4 minutes.

B. Step 3: 25% Sodium Thiosulfate.

- i. Administer 50 cc of the Sodium Thiosulfate solution IV.

C. Step 4: Continue monitoring and transport.

- 3. Frequently monitor blood pressure as the nitrates may cause the blood pressure to drop.
- 4. Consider fluid boluses.

VII. Transport Decision

- 1. Transport to the nearest appropriate receiving facility.
- 2. Notify the receiving facility of incoming patient.

VIII. The Following Options are Available consult Medical Control

- 1. Dopamine infusion of 5 - 20 ug/kg/min if necessary for support of blood pressure.

POISONINGS

Smoke Inhalation - Adult

[Don appropriate PPE]

Remove patient from source of smoke/inhalation

Assessment

- Evidence of trauma / burns
- Soot in nose / mouth / oropharynx
- Airway / Breathing
- Circulation - BP / perfusion
- LOC (level of consciousness) – GCS, pupil size / reactivity

→ Proceed to Trauma Protocol
Use spinal immobilization as indicated

Clinical Severity (Suspected Carbon Monoxide (CO), Cyanide (CN), or Combined Exposure)

Mild Exposure

+ Soot in nose / mouth / oropharynx

- Administer 100% O₂ via non-rebreather
- Monitor Pulse Oximetry
- Monitor ECG, if indicated
- Reassess frequently

Moderate Exposure

+ Soot in nose / mouth / oropharynx
+ Confusion / disorientation / altered LOC
± Hypotension

- Administer 100% O₂, ventilate with BVM if needed
- Intubate / PEEP, as indicated
- Collect blood sample via closed vacutainer technique before starting IV (purple top tube.)
Transport blood sample with patient to receiving hospital
- Initiate IV / NS @ TKO
- Monitor ECG, Pulse Oximetry, if available (Note: Pulse oximetry monitors may give false readings in patients exposed to CN/ methemoglobin or CO)
- If hypotensive, consider fluid challenge and administer Cyanokit® 5g IVpgb on scene or en route (Contact Medical Control as indicated)
- Treat other presenting symptoms
- Transport to appropriate facility

Severe Exposure

+ Soot in nose / mouth / oropharynx
+ Coma / respiratory or cardiac arrest
+ Hypotension

- Administer 100% O₂ with BVM or intubate / PEEP, as indicated
- Collect blood sample via closed vacutainer technique before starting IV (purple top tube.)
- Initiate IV / NS @ TKO
- Administer Cyanokit® 5g IVpgb and monitor for clinical response/ and need for second 5g dose. (Contact Medical Control as indicated)
- If hypotensive, consider fluid challenge
- Monitor ECG, Pulse Oximetry, if available (Note: Pulse oximeters may give false readings in patients exposed to CN / methemoglobin or CO)
- Treat other presenting symptoms
- Transport to appropriate facility

Do not administer for cardiac arrest with burns greater than 50%