**Overdose/Toxic Ingestion**

**History**
- Ingestion or suspected ingestion of a potentially toxic substance
- Substance ingested, route, and quantity
- Time of ingestion
- Reason (suicidal, accidental or criminal)
- Available medications in home
- Past medical history and medications

**Signs and Symptoms**
- Mental status changes
- Hypo or hypertension
- Decreased respiratory rate
- Tachycardia or dysrhythmias
- Seizures
- S.U.D.G.E.

**Differential**
- Tricyclic antidepressants (TCAs)
- Acetaminophen (Tylenol)
- Aspirin
- Depressants
- Stimulants
- Anticholinergics
- Cardiac medications
- Solvents, alcohols or cleaning agents
- Insecticides (organophosphates)

**Treatment Guideline A12**

**California Poison Control Center**
(800) 222-1222

**Flowchart Diagram**

1. **History**
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2. **Signs and Symptoms**
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3. **Differential**
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4. **Blood glucose analysis**
   - Yes
   - Exit to Diabetic/Behavioral TGs as indicated

5. **Altered mental status?**
   - No
   - Exit to Hypotension/Shock TG as indicated

6. **Systolic BP < 90**
   - Exit to Hypotension/Shock TG as indicated

7. **If bradycardic and symptomatic**
   - Exit to Symptomatic Bradycardia TG as indicated

8. **QRS ≥ 0.12 sec and BP < 90?**
   - Yes
   - Atropine 1-2mg IV/IO
   - Repeat every 3-5 minutes until relief of symptoms achieved

9. **Sodium Bicarbonate 1mEq/kg IV/IO**
   - Notify receiving facility. Contact Base Hospital for medical direction

10. **Calcium Chloride 500mg IV/IO**
    - (5ml of 10% solution)
    - For tetany or cardiac arrest
    - Consider Fentanyl 50-200mcg IV
    - Titrated in 25-50mcg increments to pain relief
    - OR Fentanyl 100mcg IN/IM if no IV access
    - May repeat once in 15 minutes

11. **Notify receiving facility. Contact Base Hospital for medical direction**

**Effective Jan. 2017**

**Contra Costa County Emergency Medical Services**

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Pearls

- Overdose or toxic ingestion patients with significant ingestion/exposures should be monitored very closely and aggressively treated as indicated. Do not hesitate to contact the Base Hospital for advice as certain critically ill overdose patients may quickly overwhelm medication supplies. For example, a tricyclic overdose with a wide QRS and altered mental status may need to receive multiple Sodium Bicarbonate boluses until QRS narrowing and clinical improvement; patients with organophosphate toxicity with SLUDGE syndrome may require more Atropine than is usually available on an ambulance.

- Do not rely on patient history of ingestion, especially in suicide attempts. Make sure patient is still not carrying other medications or has any weapons.

- Bring medication bottles, contents, and emesis to the Emergency Department.

- S.L.U.D.G.E.: Salivation, Lacrimation, Urination, Defecation, GI distress, and Emesis

- Tricyclic: 4 major areas of toxicity include decreased mental status, dysrhythmias, seizures, hypotension then coma and death.

- Acetaminophen: Initially normal or with nausea/vomiting. If not detected and treated, causes irreversible liver failure.

- Aspirin: Early sign consist of abdominal pain and vomiting. Tachypnea and altered mental status may occur later. Renal dysfunction, liver failure or cerebral edema among other things can present later.

- Depressants: Decreased heart rate, blood pressure or temperature, decreased respirations, and non-specific pupils.

- Stimulants: Increased heart rate, blood pressure or temperature, dilated pupils, and seizures.

- Anticholinergics: Increased heart rate or temperature, dilated pupils, and mental status changes.

- Cardiac medications: Dysrhythmias and mental status changes.

- Solvents: Nausea, vomiting, coughing, and mental status changes.

- Insecticides: Increased or decreased heart rate, increased secretions, nausea, vomiting, diarrhea, and pinpoint pupils. Consider restraints if necessary for patient’s or personnel’s protection per Restraint Procedure.

- Consider contacting the California Poison Control Center for Guidance.