A. General Care

EMR/BLS

1. Initial Assessment/Care **Protocol 01P.**
2. Attempt to identify any medications or products taken. Save any drug vials, pills, or material.
3. Manage the Airway **Protocol 7P**.
4. Manage active seizures **Protocol 16P**.
5. Treat anaphylactic reactions **Protocol 17P**.
6. If hypoglycemic, treat per **Protocol 36P**.
7. Contact the Poison Control Center, **1-800-222-1222** for assistance in managing specific overdoses. If a telephone is not available, have MEDCOM contact the Poison Control Center.
8. When contacting the Poison Control Center, the following information should be provided and documented on the Florida EMS Report:

    a) Patient's name/age.
    b) Patient's weight.
    c) Vital signs.
    d) Medication(s) name (Trade, generic, chemical). Spell it out.
    e) Dose or strength.
    f) Amount of product taken.
    g) Active ingredients.
    h) Time taken.
    i) Does the medication belong to the patient?
    j) Any history of medication allergies.
    k) Date prescription filled, total quantity and remaining count in bottle.

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NOTE: Spell out the medication(s) name so that it will not be confused with other similar sounding medication(s). Example: Zantac, Xanax.

8. If the Poison Control Center recommends the patient be seen at an Emergency Department, inquire from the Poison Center as to the most appropriate method of transport (i.e. ALS, BLS, or private vehicle).

9. Follow all recommendations from the Poison Control Center as to possible antidotes, mode of transport (if any), and follow-up care.

10. If the overdose/poisoning is related to a known or suspected suicide attempt, law enforcement should be requested and patient will be transported ALS to the closest appropriate hospital.

11. It is required to document the Poison Control Center contact person's name in the Narrative section of the ePCR.

Any overdose exhibiting signs and symptoms managed by MDFR will be treated and transported ALS to the most appropriate facility to rule out further related etiologies.

B. Suspected Opiate or Opioid Overdose

This class of narcotic drug act as a CNS depressant and induces stupor or insensibility. For suspected opiate or opioid type overdoses, signs and symptoms may include:

- Euphoria
- Decreased responsiveness
- Hypoventilation
- Bradycardia
- Hypotension
- Pale or cyanotic skin (especially in the lips or fingernails)
- Constricted (pinpoint) pupils

Commonly encountered opiates/opioids:

- Codeine
- Fentanyl
- Heroin
- Hydrocodone
- Methadone
- Morphine
- Oxycodone

NOTE: Narcan (Naloxone) should be administered only to patients showing signs of respiratory depression.

EMR/BLS

1. Initial Assessment/Care **Protocol 01P**, **A. General Care** – Pediatric Drug Overdose/Poisoning.

2. Administer supplemental oxygen **Procedure 01** as needed.
    a) Consider PPV if severe respiratory depression is noted.

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3. Administer intranasal **Naloxone (Narcan) pre-packaged nasal spray 4 mg (4 mg/0.1 mL single dose)**. May repeat every 2 to 3 minutes in alternating nostrils to improve respiratory drive to a self-sustainable level.
4. Administer intranasal **Naloxone (Narcan) 1 mg** via the Mucosal Atomizing Device (MAD) in the event the pre-packaged nasal spray is not available.
    a) Assemble and prepare equipment **Procedure 39**.
    b) Administer **Naloxone (Narcan) 0.5 mg** per nostril. Do not administer more than 0.5 mL per nostril. May repeat every 2 to 3 minutes in alternating nostrils to improve respiratory drive to a self-sustainable level.
5. Remove opiate/opioid medication patches if found and clean the area with an alcohol swab thoroughly.

ALS

6. Administer **Narcan (Naloxone) 0.1 mg/kg (max single dose 0.5 mg)** IV/IO. Repeat as needed until there is improvement in respiratory effort **Medication 26**.
    a) Naloxone (Narcan) will be discontinued once the patient's respiratory drive returns to a sustainable level.

C. Tricyclic/Tetracyclic Antidepressant Overdose

Tricyclic Antidepressants (TCAs) are prescribed for depression, insomnia, eating disorders, sleeping disorders, and personality disorders. Signs and symptoms include tachycardia, tachypnea, hypotension, and hyperthermia. Overdose can cause sodium channel blockade and potassium channel blockade causing an ECG with wide QRS complexes (≥ 0.10 sec), hypotension, or arrhythmias.

Commonly encountered TCAs:

- Amitriptyline
- Clomipramine
- Doxepin
- Nortriptyline
- Trimipramine

EMR/BLS

1. Initial Assessment/Care **Protocol 01P**, **A. General Care** – Pediatric Drug Overdose/Poisoning.
2. Administer supplemental oxygen **Procedure 01** as needed.
    a) Consider PPV if severe respiratory depression is noted.

Top

ALS

3. If patient is seizing, treat seizures per **Protocol 16P**.

4. Administer fluid bolus if patient presents with hypoperfusion. Administer **fluid bolus up to a max of 20 mL/kg** to maintain sustainable perfusion.

    a) For patients with a history of hydrocephalus, cardiac and renal insufficiencies, be cautious to avoid pulmonary edema, administer **fluid bolus up to a max of 10 mL/kg.**

5. If patient has widening of the QRS (≥ 0.10 seconds or ≥ 3 small boxes) administer **Sodium Bicarbonate 1 mEq/kg** slow IVP.

    a) May repeat **Sodium Bicarbonate 1 mEq/kg** once in 5-10 minutes.

    b) Closely monitor ECG during administration.

6. Treat underlying dysrhythmias as per **Protocol 9P**.

D. Salicylate (Aspirin) Overdose

Salicylates are common over the counter medications that may be used to treat fever and analgesia such as aspirin (ASA, acetylsalicylic acid) or bismuth subsalicylate (Pepto-Bismol, pink bismuth). Aggressive dosing of salicylates for analgesia or fever control may lead to accidental overdose. At levels ranging from 150-300 mg/kg signs and symptoms may include ringing in the ears, pulmonary edema, and acid-base disturbance. Severe overdose may present with high fever, seizures, and cardiac dysrhythmias.

EMR/BLS

1. Initial Assessment/Care **Protocol 01P**, **A. General Care** – Pediatric Drug Overdose/Poisoning.
2. Administer supplemental oxygen **Procedure 01** as needed.

    a) Consider PPV if severe respiratory depression is noted.

ALS

3. Administer fluid bolus if patient presents with hypoperfusion. Administer **fluid bolus up to a max of 20 mL/kg** to maintain sustainable perfusion.

    a) For patients with a history of hydrocephalus, cardiac and renal insufficiencies, be cautious to avoid pulmonary edema, administer **fluid bolus up to a max of 10 mL/kg.**

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4. If patient remains profoundly unstable with bradycardia and hypotension, proceed to **Protocol 9P**, Section I. Symptomatic Bradycardia.

E. Beta Blocker Toxicity/Overdose

Beta blockers are medications that are used to treat abnormal heart rhythms, certain tachycardias, and hypertension. Beta blockers work by slowing down the heart and relaxing blood vessels. Patients with beta blocker toxicity will typically present with systolic BP < 90 mmHg, bradycardia, 2nd or 3rd degree heart blocks, weakness, lethargy, and possible seizures. Patients who overdose on beta blockers may also present with hypoglycemia, especially in pediatrics.

Commonly encountered Beta-Blockers:

- **Single Agent Medication**
  - Atenolol (Ternormin)
  - Esmolol (Brevibloc)
  - Labetolol (Trandate)
  - Metoprolol (Lopressor)
  - Nadolol (Corgard)
  - Propanolol (Inderal)
  - Timolol (Blocadren)
- **Combination Medication**
  - Corzide (nadolol/bendroflumethlazide)
  - Inderide (Propanolol/HCTZ)
  - Inderide LA (Propanolol/HCTZ)
  - Lopressor HCT (Metoprolol/HCTZ)
  - Tenoretic (Atenolol/Chlorthalidone)
  - Timolide (Timolol/HCTZ)
  - Ziac (Bisoprolol/HCTZ)

EMR/BLS

1. Initial Assessment/Care **Protocol 01P**, **A. General Care** – Pediatric Drug Overdose/Poisoning.
2. Administer supplemental oxygen **Procedure 01** as needed.
   a) Consider PPV if severe respiratory depression is noted.

ALS

3. Administer fluid bolus if patient presents with hypoperfusion. Administer **fluid bolus up to a max of 20 mL/kg** to maintain sustainable perfusion.
   a) For patients with a history of hydrocephalus, cardiac and renal insufficiencies, be cautious to avoid pulmonary edema, administer **fluid bolus up to a max of 10 mL/kg.**
4. **Atropine 0.02 mg/kg (max single dose of 0.5 mg) IV/IO bolus** may be administered in mild overdoses presenting with bradycardia.
   a) May be repeated once in 3 minutes as needed (Max total dose of 1 mg).

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5. If patient presents with profound bradycardia administer **Glucagon 0.1 mg/kg slow IV/IO over 3-5 minutes (max total dose 10 mg)** and monitor patient for signs of improvement.

    a) Administer **Zofran 2 mg PO Medication 33**.

6. Consider Transcutaneous Pacing **Procedure 23** if Atropine and Glucagon ineffective.

7. May consider Epi Infusion **Medication 14** if other treatments are ineffective.

F. Calcium Channel Blocker Overdose

Calcium channel blocker medications are used to lower blood pressure and controlling the heart rate in certain patients. Toxicity may present with systolic BP < 90 mmHg, bradycardia, 2nd or 3rd degree heart blocks, altered mental status, and metabolic acidosis.

Commonly encountered Calcium Channel Blockers:

- Amlodipine (Norvasc)
- Diltiazem (Cardizem)
- Felodipine (Plendil, Renedil)
- Isradipine (DynaCirc)
- Nicardipine (Cardene)
- Nifedipine (Procardia, Adalat)
- Verapamil (Calan)

EMR/BLS

1. Initial Assessment/Care **Protocol 01P**, **A. General Care** – Pediatric Drug Overdose/Poisoning.
2. Administer supplemental oxygen **Procedure 01** as needed.

    a) Consider PPV if severe respiratory depression is noted.

ALS

3. Administer fluid bolus if patient presents with hypoperfusion. Administer **fluid bolus up to a max of 20 mL/kg** to maintain sustainable perfusion.

Top

    a) For patients with a history of hydrocephalus, cardiac and renal insufficiencies, be cautious to avoid pulmonary edema, administer **fluid bolus up to a max of 10 mL/kg.**

4. Administer **Calcium Chloride 20 mg/kg (0.2 mL/kg)** slow IV/IO bolus**.**

    a) Contraindicated if patient is taking Digoxin (Lanoxin).

5. If patient remains profoundly unstable with bradycardia and hypotension, proceed to **Protocol 9P**, Section I. Symptomatic Bradycardia.

G. Anticholinergic Toxicity

Complications of anticholinergic toxicity may consist of respiratory failure, cardiovascular collapse, rhabdomyolysis, seizures, agitation, hyperthermia, and coma. A phrase used to assist in the evaluation of a potential anticholinergic toxicity: "Hot as a hare, red as a beet (hyperthermia; hot, flushed, dry skin), blind as a bat (pupillary dilatation), mad as a hatter (hallucinations; delirium)."

- Amitriptyline (Elavil)
- Atropine
- Benztropine (Cogentin)
- Chlorpheniramine (Actifed, Allergy & Congestion Relief, Chlor-Trimeton, Codeprex, Efidac-24 Chlorpheniramine, etc.)
- Chlorpromazine (Thorazine)
- Clomipramine (Anafranil)
- Clozapine (Clozaril)
- Cyclobenzaprine (Amrix, Fexmid, Flexeril)
- Cyproheptadine (Periactin)
- Desipramine (Norpramin)
- Dexchlorpheniramine
- Dicyclomine (Bentyl)
- Diphenhydramine (Advil PM, Aleve PM, Bayer PM, Benadryl, Excedrin PM, Nytol, Simply Sleep, Sominex, Tylenol PM, Unisom, etc.)
- Doxepin (Adapin, Silenor, Sinequan)
- Fesoterodine (Toviaz)
- Hydroxyzine (Atarax, Vistaril)
- Hyoscyamine (Anaspaz, Levbid, Levsin, Levsinex, NuLev)
- Imipramine (Tofranil)
- Meclizine (Antivert, Bonine)
- Nortriptyline (Pamelor)
- Olanzapine (Zyprexa)
- Orphenadrine (Norflex)
- Oxybutynin (Ditropan, Oxytrol)
- Paroxetine (Brisdelle, Paxil)
- Perphenazine (Trilafon)
- Prochlorperazine (Compazine)
- Promethazine (Phenergan)
- Protriptyline (Vivactil)
- Pseudoephedrine HCl/Triprolidine HCl (Aprodine)
- Scopolamine (Transderm Scop)
- Thioridazine (Mellaril)
- Tolterodine (Detrol)
- Trifluoperazine (Stelazine)
- Trimipramine (Surmontil)

EMR/BLS

1. Initial Assessment/Care **Protocol 01P**, **A. General Care** – Pediatric Drug Overdose/Poisoning.

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2. Administer supplemental oxygen **Procedure 01** as needed.

    a) Consider PPV if severe respiratory depression is noted.

ALS

3. Follow ALS recommendations from the Poison Control Center. Repeat, confirm, document all medical direction, and the name of physician/toxicologist on the ePCR.

H. Cholinergics/Organophosphates

Poisonings involving organophosphates cause an acetylcholinesterase inhibition. Thus, causing toxic effects at the synapses by drastically inhibiting the necessary functions of acetylcholinesterase to deactivate acetylcholine. Allowing for an overabundance of acetylcholine (ACh) in the post-synaptic membrane that results in the continuous stimulation of the CNS and PNS producing the clinical hallmarks of organophosphate poisoning symptoms summarized by the mnemonic SLUDGEM/DUMBELS.

Examples of commonly encountered organophosphate pesticides:

- Acephate (Orthene®)
- Azinphos-methyl (Azinphos®, Guthion®)
- Chlorpyrifos (Govern®, Lorsban®, Nufos®, Warhawk®, Whirlwind®)
- Diazinon
- Dimethoate (Cygon®)
- Disulfoton (Di-syston®)
- Ethoprop (Mocap®)
- Fenamiphos (Nemacur®)
- Malathion (Fyfanon®)
- Methamidophos (Monitor®)
- Methidathion (Supracide®)
- Methyl Parathion (Penncap-M®)
- Naled (Dibrom®)
- Oxydemeton-methyl (MSR®)
- Phorate (Thimet®)
- Phosmet (Imidan®)
- Profenofos (Curacron®)

EMR/BLS

1. Initial Assessment/Care **Protocol 01P**, **A. General Care** – Pediatric Drug Overdose/Poisoning.
2. Administer supplemental oxygen **Procedure 01** as needed.
    a) Consider PPV if severe respiratory depression is noted.

ALS

3. Refer to **Protocol 25** Hazardous Materials Toxicology for treatment modalities.

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I. Antipsychotics/Dystonic Reactions

Dystonic or extrapyramidal reactions are the result of side effects related to a number of anti-psychotic and anti-emetic drugs. Signs and symptoms include painful upward gaze, bizarre tics of the eyelids, jaw clenching, facial grimacing, neck and back stiffness or spasms, and difficulty speaking. The patient is often fully awake and aware, which can help differentiate dystonic reactions from seizures. Suspect possible dystonic reaction in the patient exhibiting these signs who is taking any of the following medications:

- Compazine (Prochlorperazine)
- Haldol (Haloperidol)
- Navane (Thiothixene)
- Prolixin (Fluphenazine HCl)
- Reglan (Metoclopramide)
- Stelazine (Trifluoperazine)
- Tigan (Trimethobenzamide HCl)
- Trilafon (Perphenazine)

NOTE: The individuals taking any of these medications may also be prescribed **Cogentin** (Benztropine Mesylate) to combat untoward effects.

EMR/BLS

1. Initial Assessment/Care **Protocol 01P**, **A. General Care** – Pediatric Drug Overdose/Poisoning.
2. Administer supplemental oxygen **Procedure 01** as needed.
    a) Consider PPV if severe respiratory depression is noted.

ALS

3. Refer to **Protocol 17P** Systemic Reactions.

CO Poisoning

EMR/BLS

1. Initial Assessment/Care **Protocol 01P**, **A. General Care** – Pediatric Drug Overdose/Poisoning.
2. Administer supplemental oxygen **Procedure 01** as needed.
    a) Consider PPV if severe respiratory depression is noted.

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ALS

3. Refer to **Protocol 25P** Hazardous Materials Toxicology for treatment modalities.