

Poisoning/Overdose #3

Paramedic (continued from previous page)

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4. Refer to Seizure protocol, **Gold 8**, for TCA-induced seizure activity
5. Consider magnesium sulfate for arrhythmia that does not respond to sodium bicarbonate.
 - a. **Adult:** 2 grams of magnesium sulfate **IV/IO** over 10 minutes
 - b. **Pediatric:** 25-50 mg/kg **IV/IO** (diluted to 20% or 2 gm/10mL) infusion over 10 minutes (MAX dose 2 grams).
6. Contact OLMC if further direction needed for conditions such as arrhythmia



PEARLS

- If possible, bring container/bottles, SDS sheets, placard info, shipping manifest, and/or contents and note the following:
 - Route, time, quantity and substance(s)
 - Reason, if known: intentional or accidental
 - What treatments were provided prior to your arrival
- Pulse oximetry may NOT be accurate for toxic inhalation patients
- **For management of opioid overdose:**
- Recall, the patient suffering from opiate overdose requires immediate oxygenation and ventilation. This should be the priority for these patients and is accomplished by airway management. Naloxone may be administered, but only after initiation of airway management practices. **Do not** give naloxone to a patient who is in cardiac arrest. This practice is not helpful and may be harmful as it distracts from the best performance of tasks that are necessary for the successful resuscitation of cardiac arrest. Refer to the 2019 Naloxone White Paper for more information.
- Naloxone should be titrated to adequate respiratory drive and airway protection rather than a completely awakened state.
- Patients receiving naloxone should be transported to the hospital. Contact OLMC for patients refusing transport.
- **For tricyclic antidepressant/sodium-channel blocker toxicity:**
- The most common drugs requiring boluses of sodium bicarbonate are as follows:
 - For adults, TCAs
 - For pediatrics, antihistamines, though it is not common to get to the point of administering sodium bicarbonate for pediatric patients.
- There are several classes of medications that can cause sodium channel blockade when taken in an overdose, causing QRS prolongation and requiring sodium bicarbonate administration. The classes of these medications (with some examples) are listed below:
 - Antidepressants (amitriptyline, nortriptyline, imipramine, doxepin)
 - Antiarrhythmics (quinine/quinidine, propafenone, flecainide)
 - Anesthetics (cocaine, lidocaine, bupivacaine)
 - Muscle Relaxants (cyclobenzaprine)
 - Antihistamines (diphenhydramine)
- Gather as much detailed information about the drug as possible and monitor the QRS as per protocol
- Sodium bicarbonate increases extracellular sodium, thereby overcoming sodium channel blockade of the tricyclic antidepressant and other sodium-channel blocking medications. This effect is transient and may be difficult to notice at first. Some patients may need repeated doses of sodium bicarbonate to fully correct QRS duration (under 120 msec). If no change to the QRS occurs, please repeat immediately. While some patients may require additional doses of sodium bicarbonate, this should not delay transport.
- Consider the importance of alerting OLMC.