



7. Pertinent cardiovascular history or other prescribed medications for underlying disease
8. Patient pertinent history
9. Physical exam

Treatment and Interventions

1. Consider activated charcoal without sorbitol (1 g/kg) PO only if within the first hour of ingestion, if indicated per the time of ingestion. If risk of rapid decreasing mental status, do not administer oral agent without adequately protecting the airway
2. Consider atropine sulfate for symptomatic bradycardia
 - a. **Adult:** atropine 1 mg IV q 5 minutes to maximum of 3 mg
 - b. **Pediatric:** atropine 0.02 mg/kg (0.5 mg maximum) q 5 minutes, maximum total dose 1 mg
3. Consider calcium gluconate or calcium chloride
 - a. Calcium gluconate
 - i. **Adult:** Calcium gluconate 2–6 g slow IVP over 10 minutes
 - ii. **Pediatric:** Calcium gluconate 60 mg/kg IVP over 10 minutes
 - b. Calcium chloride
 - i. **Adult:** Calcium chloride 0.5–1 g slow IVP (50 mg/minute)
 - ii. **Pediatric:** Calcium chloride 20 mg/kg (0.2 mL/kg) slow IVP over 10 minutes (50 mg/mL) Maximum dose 1 g or 10 mL (Calcium gluconate is preferred as Calcium chloride has increased risk of tissue damage in pediatrics)
4. Consider IV fluid bolus (normal saline or lactated Ringer's) 20 mL/kg up to 2 liters
5. Consider vasopressors after adequate fluid resuscitation for the hypotensive patient [See [Shock Guideline](#) for adult vs. pediatric dosing]
6. If atropine, calcium, and vasopressors have failed in the symptomatic bradycardia patient, consider:
 - a. **Adult:** Glucagon 5 mg IVP, then 1 mg q 5 minutes IVP (may require 5–15 mg to see effect)
 - b. **Pediatric:**
 - i. Glucagon 1 mg IVP (25–40 kg); q 5 minutes as necessary
 - ii. Glucagon 0.5 mg IVP (less than 25 kg); q 5 minutes as necessary
7. Consider transcutaneous pacing if refractory to initial pharmacologic interventions
8. If seizure, consider midazolam (benzodiazepine of choice). [See [Seizures Guideline](#) for adult vs. pediatric dosing]

Patient Safety Considerations

Transcutaneous pacing may not always capture nor correct hypotension when capture is successful.

Notes/Educational Pearls

Key Considerations

1. While most calcium channel blockers cause bradycardia, dihydropyridine class calcium channel blockers (e.g., nifedipine, amlodipine) can cause a reflex tachycardia (torsade de pointes) early in the ingestion. The patient can become bradycardic as the intoxication worsens