

Bayfield-Ashland Counties EMS TOXINS / ENVIRONMENTAL Drug Overdose	ED-2 BETA BLOCKER POISONING / OVERDOSE
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SYMPTOMS: Patient may present with:

- Bradycardia
- Hypotension
- Altered mental status
- Weakness
- Shortness of breath
- Possible seizures

PEDIATRIC CONSIDERATIONS: A single pill can kill a toddler! It is very important that a careful assessment of medications the toddler could have access to be done by EMS and all suspect medications be brought to the ER.

ASSESSMENT and TREATMENT

ALL LEVELS

1. Assess ABCDs. Assure retention of body heat.
2. Obtain pertinent patient history including cardiovascular history or other prescribed medications for underlying disease.
3. Identify specific medication taken. Note immediate release vs sustained release formulations, time of ingestion and quantity.
4. Check vital signs including temperature.
5. Check blood glucose level on all patients, but especially on pediatric patients. (Beta blockers can cause hypoglycemia in the pediatric population.)
6. Monitor SpO₂.

EMT-O

7. Acquire ETCO₂.
8. Consider administration of activated charcoal without sorbitol. [If risk of rapid decreasing mental status, do not administer oral agent without adequately protecting the airway.]
9. Apply ECG cardiac monitor as available.

AEMT-R

10. Consider isotonic IV/IO fluid bolus 20 ml/kg normal saline.

AEMT-O

11. Consider isotonic IV/IO fluid bolus of lactated Ringer's.

INT-R

12. Interpret ECG rhythm strip for arrhythmias and consider obtaining a 12 lead ECG.
13. Acquire/interpret ETCO₂.
14. Consider atropine sulfate [Adult: 1 mg / Pediatric: 0.02mg/kg (maximum dose of 0.5mg/kg) for symptomatic bradycardia.
15. Consider transcutaneous pacing refractory to initial pharmacologic intervention for symptomatic bradycardia.

INT-O

16. Obtain/interpret ETCO₂ for respiratory decompensation.
17. For symptomatic patients with cardiac effects (i.e. hypotension, bradycardia) consider Glucagon.

PARA-R

If widened QRS (100 msec or greater) consider sodium bicarbonate. This can be repeated as needed to narrow QRS.

EXAMPLES:

BETA BLOCKER AGENTS:

- Acebutolol hydrochloride (Sectral)
- Atenolol (Tenormin)
- Betaxolol hydrochloride (Kerlone)
- Bisoprolol fumarate (Zebeta)
- Carteolol hydrochloride (Cartrol)
- Esmolol hydrochloride (Brevibloc)
- Metoprolol (Lopressor, Torprol XL)
- Nadolol (Corgard)
- Nebivolol (Bystolic)
- Penbutolol sulfate (Levitol)
- Pindolol (Visken)
- Propranolol (Inderal, InnoPran)
- Timolol Maleate (Biocaren)
- Sotalol Hydrochloride (Betapace)

ALPHA/BETA-ADRENERGIC BLOCKING AGENTS

- Carvedilol (Coreg)
- Labetalol hydrochloride (Trandate, Normodyne)