

<b>Medication:</b> Atropine	<b>PDN:</b> 6906.06	<b>Last Updated:</b> Feb 26 2024	<b>PMD:</b> Andrew Travers*	<b>PDC:</b> Tanya Fraser*	Page 1 of 2
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## ATROPINE

### 1.0 Classification

- Parasympatholytic
- Anticholinergic

### 2.0 Mechanism of Action

- Increases sinus node automaticity
- Increases A-V conduction

### 3.0 Indications

- Symptomatic or hemodynamically unstable bradycardia
- Organophosphate poisoning

### 4.0 Contraindications

- Hypothermic bradycardia
- Acute narrow (closed) angle glaucoma

### 5.0 Precautions

- May cause tachycardia and increase myocardial ischemia; use with caution in patients with ischemic chest pain.
- In 2° (Type II) or 3° blocks with wide QRS complexes, atropine may not be effective.
- Underdosing may result in paradoxical slowing of the heart.

### 6.0 Route

- May be given IV/IO

### 7.0 Dosage

#### Adult

- For bradycardia: 1 mg every 3-5 minutes as needed (maximum total dose 3 mg).
- For organophosphate poisoning: 2-4 mg repeated every 20 minutes until muscarinic<sup>1</sup> symptoms reverse.

#### Pediatric

- For bradycardia: 0.02 mg/kg (minimum dose 0.1 mg; maximum single dose 0.5 mg). Dose may be repeated once in 3-5 minutes. Maximum total dose for child is 1 mg and 3 mg for an adolescent.
- For organophosphate poisoning 12 years of age and over: 1 mg initially; then repeated and doubling the dose every 5 minutes until muscarinic symptoms reverse.
- For organophosphate poisoning less than 12 years of age: 0.05 mg/kg initially; then repeated and doubling the dose every 5 minutes until muscarinic<sup>1</sup> symptoms reverse.

### 8.0 Supplied

- 1 mg in a 5 mL prefilled syringe

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<sup>1</sup> Muscarinic symptoms can include included in the acronym SLUDGE (salivation, lacrimation, urination, diarrhea, gastrointestinal distress and emesis) as well as bradycardia, bronchorrhea, and bronchospasm.

## **9.0 May Be Given By**

- ICP/ACP/CCP

## **10.0 Adverse Effects**

- Rebound tachycardia
- Drowsiness
- Confusion
- Blurred vision

## **11.0 Special Notes**

- Epinephrine should be the first line treatment for pediatric bradycardia.
- Atropine will cause pupil dilation.
- Pregnancy category C [if the patient will benefit from a Category C drug, it is generally used]

## **12.0 References**

- Adult Arrhythmia Clinical Practice Guideline
- Toxicologic Emergencies Clinical Practice Guideline
- Compendium of Pharmaceuticals and Specialties (CPS)

\*Electronically Signed

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