### ATROPINE

<table>
<thead>
<tr>
<th><strong>CLASSIFICATION</strong></th>
<th>Anticholinergic, parasympatholytic</th>
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<tbody>
<tr>
<td><strong>TRADE NAME(S)</strong></td>
<td>Atropine</td>
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<td><strong>DESIRED EFFECTS</strong></td>
<td>Accelerates heart rate in bradycardia, thus improving cardiac output and decreases chance of ventricular ectopy. Dries mucous membranes in organophosphate poisoning.</td>
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<td><strong>MECHANISM OF ACTION</strong></td>
<td>By blocking parasympathetic (vagal) action of the heart, atropine increases the rate of discharge by the sinus node, enhances conduction through the AV junction, and accelerates the heart rate, thereby improving cardiac output.</td>
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| **INDICATIONS** | • Symptomatic bradycardia  
• Narrow complex (Mobitz Type I) AV block  
• Cholinergic poisoning (organophosphate or nerve agents) |
| **CONTRAINDICATIONS** | • Afib / Aflutter with rapid ventricular response (RVR)  
• Mobitz Type II AV Blocks  
• Wide Complex 3rd degree AV blocks  
• Myocardial ischemia |
| **ADVERSE REACTIONS** | • Flushed skin  
• Tachycardia  
• Dry mouth  
• Dilated pupils  
• Delirium  
• Blurred vision  
• Headache |
| **DRUG INTERACTIONS** | • Incompatible with sodium bicarbonate  
• Effects enhanced by antihistamines, procainamide, quinidine, benzodiazepines, and antidepressants |
| **PRECAUTIONS** | • Renal disease  
• CHF  
• Down’s Syndrome |
**SPECIAL CONSIDERATIONS**
Administration should be rapid IV push to prevent reflex bradycardia. Atropine may result in an increased oxygen demand in patients suffering myocardial ischemia, thus worsening the ischemia or infarction size. Ineffective for bradycardia in heart transplant patients (denervated heart), proceed to pacing.

**DOSING REGIMEN**
- **Adult**
  - Bradycardia: 0.5 mg rapid IV push every 3-5 minutes (max dose 3 mg)
  - Cholinergic Poisoning:
    - 2mg IV push every 15 minutes until decreased secretions;
    - 2mg IM every 15 minutes if NO IV
- **Pediatric**
  - Bradycardia: 0.02 mg/kg rapid IV push every 5 minutes, minimum dose 0.1 mg
    - Max dose: 1mg child; 2mg adolescent
  - Cholinergic Poisoning:
    - 0.05mg/kg IV push every 15 minutes until decreased secretions;
    - 1mg IM every 15 minutes if NO IV

**PROTOCOL LOCATION**
- Dysrhythmias
- Toxic Exposure – Nerve Agent & Organophosphate Poisoning