

AUTHORIZED BY: CPC Quality of Care Committee  
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CATEGORY: PCP/ACP Medications  
TITLE: **ATROPINE SULPHATE**

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- Other Names:**
- Atropine
- Classifications:**
- Parasympatholytic Agent, Anticholinergic
- Pharmacodynamics:**
- Decreases action of the parasympathetic nervous system increasing conduction velocity (dromotropy) and heart rate (chronotropy), enhances conduction through the AV junction
  - Decrease bodily secretions (anticholinergic effect)
- Onset:**
- SC: <30 mins (Palliative Only)
  - IV: Immediate (ACP Only)
  - CVAD : Immediate (ACP Only)
- Peak:**
- SC: <30 mins (Palliative Only)
  - IV: 2 - 4 min. (ACP Only)
  - CVAD: 2- 4min (ACP Only)
- Duration:**
- SC : 1 to 2 hrs
  - IV: 2 to 3 hrs
  - CVAD: 2 to 3 hrs
- Indications:**
- Symptomatic bradycardia (ACP Only)
  - Bradydysrhythmia (atrial fibrillation, 1<sup>st</sup> degree or 2<sup>nd</sup> degree Type I AV block)
  - Organophosphate poisoning
  - Antidote for poisoning by certain species of mushrooms (e.g. Amanita muscaria)
  - Patient aged ≥18 registered in palliative care program  
AND  
Congested/loud/rattling breathing in patients near the end of life
- Contraindications:**
- Tachycardia
  - Allergy or Hypersensitivity to anticholinergics
  - Hypothermic patients
- Precautions:**
- Hypersensitivity to the medication
  - Using atropine with other anticholinergics may result in a synergistic effect which increases vagal blockade
  - Avoid doses less than 0.5 mg in non-palliative adults as low doses may cause bradycardia
- Adverse Reactions:**
- Palpitations
  - Headache
  - Blurred vision
  - Dry mouth
  - Dilated pupils
  - Drowsiness
  - Anxiety

**Drug Interactions:**

- Stable at room temperature
- Decomposition occurs with alkaline solutions
- Incompatible with Sodium Bicarbonate (NaHCO<sub>3</sub>), Norepinephrine and Aminophylline

**Special Considerations:**

- Not likely to be effective in ventricular escape rhythms as there are minimal parasympathetic innervations in the ventricles
- Atropine also causes pupil dilation
- Considered controversial in the setting of 2<sup>nd</sup> degree Type II AV block. It may paradoxically slow the heart rate if the block is infranodal
- Transplanted hearts will not respond to Atropine.

**Image & Preparations:** 0.6 mg/ml 1 ml ampoule

**References:**

- Ontario Provincial ALS Patient Care Standards (ACP), Version 4.8
- Compendium of Pharmaceutical and Specialties 2020 (CPS)
- Lexicomp 2020 <http://online.lexi.com>

***NOTE: The information contained herein does not supersede or negate the MoHLTC Provincial Advanced Life Support Patient Care Standards and should only serve as general information about the medication itself. For medication dosages, please refer to the current version of the Ontario Provincial ALS Patient Care Standards.***