

ATROPINE SULFATE

PHARMACOLOGY & MECHANISM OF ACTIONS:

- Parasympatholytic & Muscarinic-cholinergic blocking agent
- Increases heart rate (by blocking vagal influences)
- Increases conduction through AV node (i.e., increases ventricular sensitivity to atrial impulses). Enhances the rate of discharge of the sinus node.
- Reduces motility and tone of G.I. tract
- Reduces action and tone of the urinary bladder (may cause urinary retention)
- This drug blocks cholinergic (vagal) influences already present. If there is little cholinergic stimulation present, effects will be minimal.

INDICATIONS:

- Symptomatic bradycardia or pacemaker failure
- Insecticide exposures (anti-cholinesterase, e.g., organophosphates) and nerve gases

CONTRAINDICATIONS:

- Allergy to Atropine
- Tachycardia
- Afib-flutter – may cause increased ventricular response
- High degree AV block (relative) – likely to be ineffective

ADMINISTRATION:

	ADULT	PEDIATRIC	
EMT	<ul style="list-style-type: none"> <input type="checkbox"/> May assist with auto-injector for organophosphate poisoning and nerve gas exposure. 	<ul style="list-style-type: none"> <input type="checkbox"/> SAME AS ADULT 	EMT
EMT-I	<p><i>SYMPTOMATIC BRADYCARDIA:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> 0.5 mg IV/IO <input type="checkbox"/> May repeat q 5 to 10 minutes to max of 3mg <p><i>ORGANOPHOSPHATE/NERVE AGENT:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> 2.0 mg IV/IO <input type="checkbox"/> May repeat q 5 minutes to max of 6mg 	<p><i>SYMPTOMATIC BRADYCARDIA:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> 0.02 mg/kg IV/IO (min dose of 0.1mg) IV/IO. <input type="checkbox"/> May repeat x 1 <p><i>ORGANOPHOSPHATE/NERVE AGENT:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> 0.05 mg IV/IO slowly <input type="checkbox"/> Contact OLMC for additional dosing. 	EMT-I

PRECAUTIONS & SIDE EFFECTS:

- Dilated pupils in cardiac arrest situations
- Bradycardias in the setting of an acute MI are common and probably beneficial. Don't treat them unless there are signs of poor perfusion (low blood pressure, mental confusion).
- Atropine will not have an effect on transplanted hearts due to no vagal nerve connection to the heart.
- Pregnancy Category C.
- Use with caution in atrial fibrillation and atrial flutter because increased conduction may speed ventricular rate excessively.
- Chest pain could be due to an MI or to poor perfusion caused by the bradycardia itself.
- People walk around doing well with chronic second and third degree block. Symptoms occur mainly with acute change. Treat the patient, not the EKG monitor.
- Doses of less than 0.5 mg and those given slowly may be parasympathomimetic.
- SLUDGE: Salivation, Lacrimation, Urination, Defecation, Gastric Upset, Emesis