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:

<table>
<thead>
<tr>
<th>EMT</th>
<th>ADULT</th>
<th>PEDIATRIC</th>
<th>EMT-I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>May assist with auto-injector for organophosphate poisoning and nerve gas exposure.</td>
<td>SAME AS ADULT</td>
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<table>
<thead>
<tr>
<th>EMT-I</th>
<th>SYMPTOMATIC BRADYCARDIA:</th>
<th>SYMPTOMATIC BRADYCARDIA:</th>
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<tbody>
<tr>
<td></td>
<td>0.5 mg IV/IO</td>
<td>0.02 mg/kg IV/IO (min dose of 0.1mg) IV/IO.</td>
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<td>May repeat q 5 to 10 minutes to max of 3mg</td>
<td>May repeat x 1</td>
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<thead>
<tr>
<th>EMT-I</th>
<th>ORGANOPHOSPHATE/NERVE AGENT:</th>
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<tbody>
<tr>
<td></td>
<td>2.0 mg IV/IO</td>
<td>0.05 mg IV/IO slowly</td>
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<td>May repeat q 5 minutes to max of 6mg</td>
<td>Contact OLMC for additional dosing.</td>
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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