Atropine is a cholinergic blocking (anti-cholinergic) agent that inhibits the effects of the parasympathetic nervous system. It increases heart rate by blocking vagal influences and increases conduction through the A-V node (i.e., increased ventricular sensitivity to atrial impulses). It dilates the pupils, reduces GI motility, dries mucosal membranes and reduces secretions in the bronchioles. If there is little parasympathetic stimulation to block, the effects will be minimal.

Indications and Administration

1. Symptomatic bradycardias.
   a. **Adult -** 0.5 mg I V push every 3-5 min to a maximum of 3 mg. Titrate to a stable blood pressure.
   b. **Pediatric -** 0.02 mg/kg IV/IO push every 3-5 min to a maximum of 0.04 mg/kg. Minimum dose is 0.1 mg, maximum single dose is 0.5 mg.
2. Organophosphate and carbamate insecticide poisoning.
   a. **Adult -** 2.0 - 5.0 mg I V push every 15-30 min.
   b. **Pediatric -** 0.05 mg/kg I V push.
3. Premedication for rapid sequence intubation if patient < 10 y/o or heart rate < 60.
   a. **Adult** – 0.5mg IV push.
   b. **Pediatric** – 0.02 mg/kg IV push. Minimum 0.1mg and maximum 0.5mg.

Notes

1. Contraindicated in atrial fibrillation and atrial flutter because increased conduction may speed ventricular rate excessively.
2. Treat bradycardias only if there are signs of poor perfusion (altered LOC, chest pain, shortness of breath, hypotension). In setting of myocardial infarction, bradycardia can be cardio-protective as it lessens the heart's need for oxygen.
3. Small doses may cause a paradoxical bradycardia, especially in children.
4. Side effects include tremor, urinary retention, dry mouth, blurred vision, ileus and headache.