

**Classification**

Anticholinergic

**LA County Prehospital Indications**

Cardiac Dysrhythmia: symptomatic bradycardia in adults; suspected AV Block or increased vagal tone in pediatrics

Hazmat exposure: organophosphate/pesticide/nerve agent poisoning with heart rate < 60 bpm, respiratory depression and/or extreme salivation

**Other Common Indications (Not authorized for EMS administration in LA County)**

End-of-life care, to dry secretions for patient comfort

Eye disorders requiring mydriasis (pupillary dilation) for treatment/testing, administered as eye drop

GI disorders caused by hypermobility (chronic diarrhea, irritable bowel syndrome)

**Adult Dose**

Cardiac Dysrhythmia

**1mg (10mL) IV/IO push** repeat every 3-5 min prn, maximum total dose 3mg

Organophosphate poisoning

**2mg (20mL) IV/IO** may repeat every 5 min until patient is asymptomatic

**Pediatric Dose**

Cardiac Dysrhythmia

**0.02mg/kg (0.1mg/mL) IV/IO**, dose per [MCG 1309](#), may repeat x1 in 5 min

Organophosphate poisoning

**0.05mg/kg (0.1mg/mL) IV/IO**, may be repeated every 5 min, maximum total dose 5mg

**Mechanism of Action**

Competitively inhibits action of acetylcholine on autonomic effectors innervated by postganglionic nerves

**Pharmacokinetics**

Peak effect in 20-30 min IM, 2-4 min IV/IO, duration 4 hr

**Contraindications**

Tachycardia

Thyrotoxicosis

**Interactions**

None for IV/IM/IO administration

**Adverse Effects**

Dry mouth / Thirst

Dysrhythmias

Flushed dry skin

Hypertension / Hypotension

Hyperthermia

Increased intraocular pressure

Mydriasis (pupil dilation)

**Prehospital Considerations**

- Use cautiously if myocardial infarction and/or ischemia is suspected, as atropine will increase myocardial O<sub>2</sub> demand, which may worsen the infarct.
- Bradycardia due to 2<sup>nd</sup> degree type II and 3<sup>rd</sup> degree heart blocks will not improve with atropine; if treatment indicated, transcutaneous pacing (TCP) should be performed.