



**El Dorado County Emergency Medical
Services Agency**
Quick Reference

Revised Date: July 1, 2020

Medication Profile

Atropine Sulfate

Class:

Anticholinergic (Parasympathetic blocker), Antiarrhythmic

Action:

Atropine is a potent parasympathetic blocker and is used to increase the heart rate in hemodynamically significant bradycardias. Atropine acts by blocking acetylcholine receptors, thus inhibiting parasympathetic stimulation. Atropine has positive chronotropic properties, and little or no inotropic effect. It plays an important role as an antidote in organophosphate poisonings.

Onset: Immediate

Peak: 2-4 minutes

Duration: 4-hours

Adult Administration:

Bradycardia

0.5mg IV/IO every 3-5 min to a max of 3mg

Organophosphate Poisoning

2mg IV/IO May be repeated every 5 min until symptoms clear

If symptoms are severe or the patient does not respond to treatment, higher doses of atropine may be Base Ordered.

Pediatric Administration:

Bradycardia

0.02mg/kg

Child: (minimum dose: 0.1mg, Max dose 0.5mg) may repeat after 5 min (Max cumulative dose of 1.0mg)

Adolescent: 1.0mg May repeat after 5 min (Max cumulative dose of 2.0mg)

Organophosphate Poisoning

12yrs and under: 0.02mg/kg IV/IO initially, repeat every 30 minutes until muscarinic symptoms reverse.

Over 12 yrs: 2mg IV/IO initially, then 2mg IV/IO every 30 min until muscarinic symptoms reverse.

Indications:

Hemodynamically significant
Bradycardias
Bradycardia secondary to ROSC
Organophosphate poisoning or
nerve gas poisoning

Contraindications:

Unstable cardio vascular status in acute
hemorrhage
Tachycardia
Hypersensitivity
Narrow-angle glaucoma

Side Effects:

This document is not a substitute for Protocols and Procedures.

Effective Date: September 1, 2020

CV: Palpitations, tachycardia, hypertension

CNS: Headache, nervousness, weakness, dizziness

GI: Dry mouth with thirst and dysphagia, constipation, heartburn

INTEG: Flushed, dry skin

EENT: Blurred vision, photophobia

GU: Urinary retention

Pregnancy:

Category C

Notes:

- Atropine may worsen bradycardia associated with second-degree type II and third-degree AV blocks.