

Atropine Sulfate

Indications: Symptomatic Bradycardia (if TCP is not immediately available); Organophosphate poisoning

Contraindications: A-Fib or A-Flutter

Concentration: 0.4 mg/mL

ADULT DOSING

Indication	Dose	Rate & Route	Note
Symptomatic Bradycardia	0.8 mg 2 mL	Rapid IV/IO Push	May repeat every 3 minutes. Max dose of 0.04 mg/kg.
Organophosphate Poisoning		IV/IO/IM	Repeat 2 mg every 3 minutes.
Severe	6 mg 15 mL		
Moderate	4 mg 10 mL		
Mild	2 mg 5 mL		

ADULT DOSING

PEDIATRIC DOSING

Indication	Dose	Rate & Route	Note
Symptomatic Bradycardia	0.02 mg/kg	Rapid IV/IO Push	Repeat x1 in 5 minutes.
Organophosphate Poisoning	Minimum of 0.1 mg Max dose: 0.8 mg		Repeat every 5 minutes until airway is dry and patient has adequate perfusion.

PEDIATRIC DOSING

Pediatric Dosing Atropine										
3 kgs	4kgs	5 kgs	6-7 kgs	8-9 kgs	10-11 kgs	12-14 kgs	15-18 kgs	19-23 kgs	24-29 kgs	30-36 kgs
6.6 lbs	8.8 lbs	11 lbs	13-15 lbs	17-20 lbs	22-24 lbs	26-30 lbs	33-40 lbs	42-50 lbs	53-64 lbs	66-80 lbs
in18.25-20.25	in20.25-21.5	in21.5-23.25	in23.25-26.25	in26.25-29.25	in29.25-33	in33-37.5	in37.5-42.5	in42.5-47.75	in47.75-51.25	in51.25-56.25
Atropine Sulfate IV/IO Concentration = 0.4 mg/ml										
0.3 mL	0.3 mL	0.3 mL	0.3 mL	0.4 mL	0.5 mL	0.7 mL	0.8 mL	1.1 mL	1.3 mL	1.7 mL

Precautions

Slow administration of atropine can cause paradoxical bradycardia.

Adverse/Side Effects

Pupil dilation, tachycardia, V-Tach, V-Fib, HA, dry mouth

Class

Parasympatholytic & Anticholinergic

Mechanism of Action

Competitive antagonist that selectively blocks all muscarinic responses to acetylcholine. Blocks vagal impulses, thereby increasing SA node discharge, thereby enhancing AV conduction and cardiac output. Potent anti-secretory effects caused by the blocking of acetylcholine at the muscarinic site. Atropine is also useful in the treatment of the symptoms associated with nerve agent poisoning.

Onset of Action

Immediate

Peak Effect

0.7 to 4 minutes

Duration of Action

Variable