




ATROPINE

Indication	<ul style="list-style-type: none"> • Reversal of severe sinus bradycardia^{1,2} • Prevention of bradycardia in conjunction with use of medications known to cause bradycardia (e.g. suxamethonium)¹ • Reduce the muscarinic effects of neostigmine when reversing neuromuscular blockage² 		
INTRAVENOUS	Presentation	<ul style="list-style-type: none"> • Ampoule 600 microgram/mL 1.2 mg/mL (1200 microgram/mL) 	 
	Dosage	<ul style="list-style-type: none"> • 20 microgram/kg <ul style="list-style-type: none"> ○ Dose can be repeated after 10 to 15 minutes to achieve desired effect² ○ Maximum cumulative dose 40 microgram/kg^{2,3} 	
	Preparation	<ul style="list-style-type: none"> • 600 microgram/mL <ul style="list-style-type: none"> ○ Add 600 microgram (1 mL) to 11 mL of 0.9% sodium chloride ○ <i>Concentration now equal to 50 microgram/mL</i> • 1.2 mg/mL (1200 microgram/mL) <ul style="list-style-type: none"> ○ Add 600 microgram (0.5 mL) to 11.5 mL of 0.9% sodium chloride ○ <i>Concentration now equal to 50 microgram/mL</i> 	
	Administration	<ul style="list-style-type: none"> • Draw up the prescribed dose • IV injection as bolus³ (up to 1 minute) 	
IM	Presentation	<ul style="list-style-type: none"> • Ampoule 600 microgram/mL 1.2 mg/mL (1200 microgram/mL) 	
	Dosage	<ul style="list-style-type: none"> • 20 microgram/kg <ul style="list-style-type: none"> ○ Dose can be repeated after 10 to 15 minutes to achieve desired effect² ○ Maximum cumulative dose 40 microgram/kg^{2,3} 	
	Preparation	<ul style="list-style-type: none"> • Nil required 	
	Administration	<ul style="list-style-type: none"> • Draw up the prescribed dose • Intramuscular injection into thickest part of the vastus lateralis in the anterolateral thigh (maximum 0.5 mL per site)⁴ 	
Special considerations	<ul style="list-style-type: none"> • Slow IV administration may result in paradoxical bradycardia³ • In an emergency, IV or IO routes are preferred. Can be given via ETT but absorption is variable and higher doses may be required⁵ • UAC route: discuss with neonatologist/paediatrician prior to use 		
Monitoring	<ul style="list-style-type: none"> • Heart rate, temperature 		
Compatibility	<ul style="list-style-type: none"> • Fluids³ <ul style="list-style-type: none"> ○ 0.9% sodium chloride • Y-site <ul style="list-style-type: none"> ○ Amikacin⁶, amiodarone³, calcium gluconate⁶, cephazolin⁶, cefotaxime⁶, cefoxitin⁶, ceftazidime⁶, dexamethasone⁶, digoxin⁶, dobutamine⁶, dopamine⁶, adrenaline (epinephrine), fluconazole⁶, furosemide (frusemide)⁶, gentamicin⁶, heparin³, hydrocortisone³, insulin (regular)⁶, meropenem⁶, midazolam⁶, morphine³, ondansetron⁶, phenobarbital (phenobarbitone)⁶, potassium chloride⁶, ranitidine⁶, sodium bicarbonate⁶, vancomycin⁶ 		
Incompatibility	<ul style="list-style-type: none"> • Drugs <ul style="list-style-type: none"> ○ Ampicillin³, flucloxacillin³, phenytoin⁶, trimethoprim-sulfamethoxazole (co-trimoxazole)⁶ 		
Interactions	<ul style="list-style-type: none"> • Potentiates effects (therapeutic and/or adverse) if given with other anticholinergic drugs 		
Stability	<ul style="list-style-type: none"> • Store below 25 °C¹ • Single use only. Discard residual after opening¹ 		
Side effects	<ul style="list-style-type: none"> • Cardiac arrhythmias (particularly in the first 2 minutes), fever, abdominal distention with reduced bowel activity, oesophageal reflux and mydriasis^{1,2} 		
Actions	<ul style="list-style-type: none"> • Increases heart rate, inhibits smooth muscle contraction in the gastrointestinal and genitourinary systems⁷ • Inhibits salivary and bronchial secretions¹ 		

Abbreviations	ETT: endotracheal tube; IM: intramuscular; IO intraosseous, IV: intravenous; UAC: umbilical arterial catheter
Keywords	Intubation protocol, bradycardia, rapid sequence intubation, atropine, atropine sulfate

Quick guide

Atropine dose 20 microgram/kg	Round weight to nearest 0.5 kg							
	0.5 kg	1 kg	1.5 kg	2 kg	2.5 kg	3 kg	3.5 kg	4 kg
Use 50 microgram/mL reconstituted concentration								
Dose (microgram) for approx. weight	10 mcg	20 mcg	30 mcg	40 mcg	50 mcg	60 mcg	70 mcg	80 mcg
Administration volume (mL)	0.2 mL	0.4 mL	0.6 mL	0.8 mL	1 mL	1.2 mL	1.4 mL	1.6 mL

The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

References

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