

Atropine

Newborn use only

2019

Alert	
Indication	Prevention of reflex bradycardia during elective endotracheal intubation. Preanaesthetic medication to prevent perioperative adverse events.
Action	Competitively inhibits acetylcholine at muscarinic acetylcholine receptors, decreases the effects of the parasympathetic nervous system and increases the effects of the sympathetic nervous system. Increases heart rate with a peak effect in 2–4 minutes after IV administration. Salivary secretion and intestinal and gastric motor activity are decreased for up to 6 hours. Bronchial smooth muscle relaxes, decreasing airways resistance.
Drug Type	Anticholinergic
Trade Name	Atropine sulphate
Presentation	Vial for injection – 600 microgram/1 mL ampoule.
Dosage/Interval	Intubation IV, IM: 10 microgram/kg/dose (range 10–20 microgram/kg/dose) Preanaesthetic medication PO: 20 microgram/kg/dose 1 hour prior to induction of anaesthesia (range 20–40 microgram/kg/dose).
Route	PO, IV, IM
Preparation/Dilution	IV, IM or PO: Draw up 1 mL (600 microgram of atropine) and add 5 mL WFI to make final volume 6 mL with a concentration of 100 microgram/mL.
Administration	IV slow bolus Administer orally with or without feeds Can be repeated after 5 minutes if required.
Monitoring	Continuous cardiorespiratory monitoring. Monitor temperature and abdominal distension.
Contraindications	Hypersensitivity to atropine. Arrhythmias, tachycardia, congenital glaucoma, intestinal obstruction, obstructive uropathy, asthma.
Precautions	Fever — in febrile patients or patients exposed to elevated ambient temperature, there is risk of provoking hyperpyrexia and heat prostration Gastro-oesophageal reflux
Drug Interactions	The hypertensive and cardiac arrhythmic adverse effects of phenylephrine absorbed from eye drops can be significantly increased by systemic atropine. There is increased risk of antimuscarinic side effects if atropine is used in combination with antihistamines (e.g. promethazine, cyclizine), codeine or phenothiazines (e.g. prochlorperazine). Atropine antagonises the gastrointestinal motility promoting effects of domperidone and metoclopramide. May increase serum concentrations of thiazide diuretics e.g. hydrochlorothiazide. Reduces the absorption of ketoconazole. Increases the absorption of nitrofurantoin. May increase the risk of opioid-induced constipation and urinary retention. Anticholinergic agents, including atropine, may increase the toxic side effects of topiramate.
Adverse Reactions	Tachycardia, arrhythmia, hyperthermia, flushing, irritability, abdominal distension, oesophageal reflux with decreased oesophageal sphincter tone, decreased gut motility, urinary retention, dry mouth.
Compatibility	Fluids: sodium chloride 0.9% Y-site: Adrenaline (epinephrine), amikacin, aminophylline, amiodarone, calcium chloride, calcium gluconate, cefazolin, cefotaxime, ceftazidime, cefuroxime, ceftriaxone, chlorothiazide, clindamycin, dexamethasone, digoxin, dopamine, dobutamine, erythromycin, famotidine, fentanyl, fluconazole, folic acid, furosemide (frusemide), gentamicin, glycopyrronium bromide (glycopyrrolate), heparin, hydrocortisone sodium succinate, imipenem, indometacin, insulin, lidocaine (lignocaine), magnesium sulfate heptahydrate, meropenem, methadone, metoclopramide hydrochloride,

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	morphine sulfate pentahydrate, midazolam, nafcillin, naloxone, noradrenaline (norepinephrine), benzylpenicillin, phenobarbital (phenobarbitone), piperacillin, potassium chloride, , propranolol, pyridoxine, sodium bicarbonate, ranitidine, theophylline, tobramycin, vancomycin
Incompatibility	Y-site: Ampicillin, diazoxide, diazepam, flucloxacillin, hydralazine, pantoprazole, phenytoin, propofol, sulfamethoxazole-trimethoprim, thiopentone
Stability	Use once and discard residual.
Storage	IV – unopened vials stable at room temperature (20–25°C). Protect vial from light.
Special Comments	Atropine toxicity – treat anticholinergic symptoms with physostigmine (0.01–0.04 mg/kg/dose) by slow IV infusion.
Evidence summary	Refer to full version.
References	Refer to full version.

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