

# NICU: Atropine

Reference No: MONO-PAEDS/575/23

Presentation:	Injection 600 micrograms/ml										
Indication:	Bradycardia not responding to bag and mask ventilation during elective intubation (see guideline NIC RC 09)										
Dose:	20 micrograms/kg as a single dose										
Route of administration:	IV bolus. Atropine has a low pH and may cause venous irritation and tissue damage in cases of extravasation. If central venous access is unavailable, administer via a large peripheral vein monitoring insertion site closely. Re-site cannula at first signs of inflammation.										
Instructions for preparation:	<ul style="list-style-type: none"> <li>Draw up 1mL of the 600 micrograms/ml injection</li> <li>Dilute to a final volume of 10mL with sodium chloride 0.9%</li> <li>Shake well to mix thoroughly</li> <li>The resulting solution contains <b>60 micrograms per ml</b></li> <li>Draw out the volume required from the syringe using the smallest syringe possible</li> </ul>										
	Dose	10 micrograms	20 micrograms	30 micrograms	40 micrograms	50 micrograms	60 micrograms	70 micrograms	80 micrograms	90 micrograms	100 micrograms
	Amount of <b>60 micrograms per mL</b> diluted solution	0.17mL	0.33mL	0.5mL	0.67mL	0.83mL	1mL	1.17mL	1.33mL	1.5mL	1.67mL
	<ul style="list-style-type: none"> <li>Administer calculated volume as a <del>slow bolus</del> rapid IV injection; slow injection may result in paradoxical bradycardia.</li> </ul>										
<u>Prescribing</u>	RDH: Prescribe on paper chart QHB: Prescribe on Meditech										
Known compatibility issues	See separate guideline										
Additional Comments:	<p>May cause paradoxical bradycardia if given by slow IV injection. Ventricular fibrillation and tachycardia have occurred rarely. Monitor ECG according to clinical need.</p> <p>Not licensed for use in children &lt; 12 years for intra-operative bradycardia or by IV route for premedication.</p>										

Note: The contents of this monograph should be read in conjunction with information available in the BNFC and Medusa regarding cautions, contraindications etc.

## References:

Medusa Paediatric Injectable medicines guide, accessed via: Injectable Medicines Guide - Display - Atropine sulfate - Intravenous - Version 10 - IVGuideDisplayMain.asp (medusaimg.nhs.uk) on 13/10/23

NICU intubation chart, accessed via: opac-retrieve-file.pl (koha-ptfs.co.uk) on 13/10/23

BNFc Atropine sulfate, accessed via: Atropine sulfate | Drugs | BNFC | NICE on 13/10/23 Up to Date Pediatric Drug Information for Atropine (systemic) Accessed 14/11/23

Evelina Paediatric Formulary Accessed 14/11/23

**Document control sheet**

<b>GUIDELINE NUMBER</b>	CH PH N 48
<b>AREA IN WHICH THIS MONOGRAPH APPLIES</b>	NICU

<b>DIVISIONAL AUTHORISATION</b>	
<b>GROUP</b>	<b>DATE</b>
Paediatric monograph review group	22/12/2023

<b>AUTHORS</b>		
<b>Author</b>	<b>Position</b>	<b>Date</b>
Written by:	Senior Pharmacist Paediatrics	November 2010

If review:

	<b>Position</b>	<b>Date</b>
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Change history:

<b>Changes Reference</b>	<b>Change details</b>	<b>Date</b>
1	Dilution recommendation changed to avoid measurement of volumes <0.2mL which is potentially inaccurate	October 2019
2	Dose increased to 20 micrograms/kg	October 2023
3	Draw up 1mL of 600 micrograms in 1mL and dilute up to 10mL with NaCl 0.9% resulting in 60 micrograms in 1mL solution	October 2023
4	Amount of mLs to draw up dependent on the dose (see Intubation chart on Koha)	October 2023
5	Administration instructions in main body of monograph amended from 'slow IV bolus' to 'rapid IV injection'	November 2023