

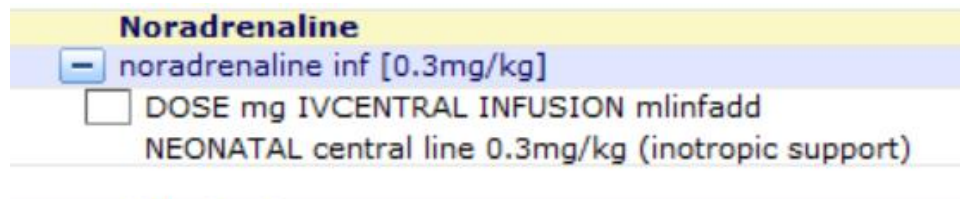
NICU/NNU: Noradrenaline

Presentation:	Noradrenaline (norepinephrine) 1 mg/ml (1 in 1,000), 4ml ampoules
Indication:	Inotropic support
Dose:	<p>NB. All doses refer to noradrenaline base.</p> <p>Initially 0.02-0.1 micrograms/kg/min, titrated according to response (max 1 microgram/kg/min)</p> <p>When stopping the infusion, reduce dose gradually to avoid sudden falls in blood pressure. Doses in BNFC are expressed in nanograms/kg/min. To convert nanograms to micrograms, divide by 1,000.</p>
Route of administration:	Continuous intravenous infusion via central line or intraosseous route only.
Instructions for preparation:	<ul style="list-style-type: none"> • Measure 300microgram/kg noradrenaline (round to nearest 100 microgram for ease of measuring) • Dilute with 5% glucose (preferred) or 0.9% sodium chloride to 50ml • 0.1micrograms/kg/min = 1ml/hr <p>The calculated infusion rate should be rounded to the nearest 0.1ml/hr. Subsequent dose changes can be made by altering the infusion rate.</p> <p>Discard diluted solution after 24hours or if brown discolouration develops</p> <p>For fluid restricted infants, a double strength infusion containing 600 microgram/kg in 50ml may be used.</p>

Prescribing

QHB MediTech

Open the NNU ORDER SET and select the option for NEONATAL INOTROPES. Then tick noradrenaline infusion.



Noradrenaline

– noradrenaline inf [0.3mg/kg]

DOSE mg IVCENTRAL INFUSION mlinfadd
NEONATAL central line 0.3mg/kg (inotropic support)

The system will calculate the amount of adrenaline needed to make the infusion. The prescriber screen (order screen) and MAR screen (medication chart) will explain how to make the infusion and provide initial rate guidance.

Example for 1.1kg baby.

First prescriber screen:

Noradrenaline

– noradrenaline inf [0.3mg/kg]

0.3 mg IVCENTRAL INFUSION mlinfadd

NEONATAL central line 0.3mg/kg (inotropic support)

MAR chart (and second prescriber screen)

] noradrenaline inf [0.3mg/kg]

0.3 mg IVCENTRAL INFUSION

Generic: noradrenaline inf [0.3mg/kg]

Rx#: QH0060701



Dose Instructions:

Initial rate 0.02-0.1 micrograms/kg/min titrated to response.

Label Comments:

Add 0.3 mlS (0.3 mg = 0.3 ml)

noradrenaline using 1mg/ml solution and dilute with glucose 5% or sodium chloride 0.9% to a volume of 50mls.

Administer by continuous infusion via SMART pump:

1 ml/hour delivers 0.1 micrograms/kg/min dose

Discard diluted solution after 24 hours or if brown discolouration develops.

RDH

****Please ensure concentration (in micrograms/ml) is completed to enable use of SMART pumps****

To calculate the concentration of infusion for SMART pumps (micrograms/ml), divide total micrograms in infusion by volume of infusion (ml):

e.g. $450\text{micrograms in } 50\text{ml} = \frac{450\text{micrograms}}{50\text{ml}} = 9\text{micrograms/ml}$

Example prescription for 1.5kg child:

Drug	Drug amount in syringe	Diluent	Total volume (ml)	Route	
Noradrenaline	450micrograms	5% glucose	50ml	IV	
Start date	Drug concentration per ml	Infusion range	Min	Max	Name, Sig, Bleep
6/3/18	9micrograms/ml	Dose/kg/time	0.02micrograms /kg/min	1micrograms /kg/min	A.Doctor
Pharm		ml/hr	0.2	10	#1234

Directions for administration via SMART pump

- Load syringe, prime line using the pump for accurate dosing.
- Open 'Children' folder then open 'Noradrenaline' programme.
- Using DATA chevrons enter concentration in micrograms/ml and confirm
- Enter child's weight in kg and confirm
- Enter the dose in **micrograms/kg/min**
- Visually confirm the rate (ml/h) against the prescribed dose (micrograms/kg/min)
- Perform STOP moment with medical team

	(check pump against prescription) <ul style="list-style-type: none"> • Connect to child • Press start button
Known compatibility issues	Compatible: adrenaline, dobutamine, dopamine, heparin, midazolam, morphine, KCl Incompatible: aminophylline, insulin, phenobarbital
Additional Comments:	Local extravasation may result in vasoconstriction and necrosis. If this occurs stop the infusion and seek medical advice. Do not flush the central venous access device. After the infusion is stopped, disconnect the administration set, aspirate the cannula contents and then flush with sodium chloride 0.9%.

Note: The contents of this monograph should be read in conjunction with information available in the BNFC and Medusa

References:

British National Formulary for Children, accessed via www.medicinescomplete.com on 25/9/23

SPC for noradrenaline accessed via www.medicines.org.uk on 25/9/23

Medusa Injectable Medicines Guide, accessed via <http://medusa.wales.nhs.uk> on 25/9/23

Trissel LA (Ed), Handbook on Injectable Drugs, accessed via www.medicinescomplete.com on 12/3/18

Document control sheet

GUIDELINE NUMBER	
AREA IN WHICH THIS MONOGRAPH APPLIES	NICU

DIVISIONAL AUTHORISATION

GROUP	DATE
Paediatric monograph review group	22/12/2023

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Change history:

Changes Reference	Change details	Date
	Update to UHDB status - include reference to MediTech use	April 2023