Pharmacy Drug Monograph



NICU: Midazolam (Status epilepticus)

Presentation:	Midazolam 5mg	g/ml solution for	injection or	infusion			
Indication:	Management o	f status epileptic	us				
Dose:							
	Indication	Age		Bolus Dose	Continuous Infu	ision Dose	
	Status Epilepticus	All ages	150 – 200 admini) micrograms/kg stered over at least 3 minutes	1 microgram/kg/mi steps o 1 microgram/kg/min until seizure o (Max rate: 5 microg	n , increased in of every 15 minute ontrolled grams/kg/min)	
	NB. BNFC expresses dose as micrograms/kg/hr but SMART pumps take dose in micrograms/kg/min						
Route of administration:	Intravenous bolus and continuous intravenous infusion via SMART pump						
Instructions for preparation and administration:	Preparation of midazolam syringe: 1. Measure 3mg/kg midazolam 2. Dilute with glucose 5% or sodium chloride 0.9% to a final volume of 50ml 3. 1 microgram/kg/min = 1 ml/hour						
Prescribing	RDH- Prescribe on paper chart QHB- Prescribe on Meditech To calculate concentration of infusion for SMART pumps (in micrograms/ml) divide total mg in infusion by total volume of infusion (ml) and multiply by 1000: <i>e.g.</i> 4.5mg in 50ml = <u>4.5mg</u> = 0.09mg/ml x 1000 = 90 micrograms/ml 50ml						
	E.g. for a 1.5kg neonate						
	Drug	Drug amo u	nt in syringe	Diluent	Total volume (ml)	Route	
	Midazolam	4.	5mg	Glucose 5%	50mL	IV	
	Start date Drug	concentration per ml	Infusion range	Min	Max	Name, Sig, Bleep	
	12/10/20 90 m	icrograms/mL	Dose/kg/time	1 micrograms/kg/min	5 micrograms/kg/min	Doctor ABC	
Y site compatibility	See separate Y	site compatibilit	y chart	1	5	1234	
Instructions for SMART pump	 Load Syringe, prime line using the pump for accurate dosing. Open 'NICU' folder then open 'Midazolam Status' programme. Using DATA chevrons amend/enter concentration in mcg/ml and confirm Enter Childs weight in kg Enter loading dose in mcg/kg (zero if not required) Confirm bolus time (To be given over minimum 5mins) Enter the dose in mcg/kg/min and confirm Visually confirm the rate (mls/h) against the prescribed dose (mcg/kg/min) Perform STOP moment with medical team (Pump against prescription) Connect to Child 						

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Commented [CT1]: this method of prep isnt recommended anywhere but makes the most sense with the maths for the pumps notts do something different

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Additional	Monitor heart rate, blood pressure, respiration rate, oxygen saturations and for symptoms of
Comments:	toxicity / accumulation.
	When used with opiates, potentiation of respiratory or cardiovascular depression may occur. Patients with hypovolaemia, vasoconstriction, or hypothermia are at risk of increased sedation.
	Flumazenil is indicated for the reversal of benzodiazepine related sedation/respiratory depression, however it is contra indicated in status epilepticus.

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

References:

EMC SPC Available online: Midazolam 5 mg/ml Solution for Injection or Infusion,

https://www.medicines.org.uk/emc/product/6045/smpc last accessed 13.10.20

BNFc, Midazolam, Available online https://bnfc.nice.org.uk/drug/midazolam.html#indicationsAndDoses last accessed 05/04/24 Evelina, Midazolam, Available online

Nottingham's Neonatal Intensive Care Unit Pharmacopeia, Midazolam, Accessed via Guidelines App 05/04/24

NICE, Available online https://www.nice.org.uk/guidance/cg112/chapter/2 last accessed 14.10.20

Micromedex, Midazolam, Paediatric Dosing, Sedation for a mechanically ventilated patient, Available online

https://www.micromedexsolutions.com last accessed 05/04/24

Medusa, Injectable Drug Handbook, available via Trust Intranet, Paediatric Intravenous Midazolam, last accessed 05/04/24

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Ref No: Midazolam - NICU, Version 3

Document control sheet

GUIDELINE NUMBER	Midazolam - NICU, Version 3
AREA IN WHICH THIS MONOGRAPH APPLIES	NICU

DIVISIONAL AUTHORISATION			
GROUP	DATE		
Paediatric monograph review group	August 2024		

AUTHORS			
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Change history:

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