



NEONATAL MEDICATION GUIDELINE

DOBUTamine

Scope (Staff): Nursing, Medical and Pharmacy Staff

Scope (Area): KEMH NICU, PCH NICU, NETS WA

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HIGH RISK Medication 

Description

Sympathomimetic/Inotropic agent; vasodilator, used to increase cardiac output with myocardial dysfunction and unchanged or increased systemic vascular resistance

Presentation

Ampoule: 250mg/mL

Storage

Ampoule: Store at room temperature, below 25°C

Diluted Solution: Use immediately after preparation

Dose

Cardiovascular shock

Continuous IV Infusion:

Initially 5 microgram/ kg/ minute then titrate according to response

Maximum 20 microgram/kg/ minute

Management of hypotension and hypoperfusion

Continuous IV Infusion:

Initially 5 microgram/ kg/ minute then titrate according to response

Maximum 20 microgram/kg/ minute

Dose Adjustment

Adjust dose according to response

Preparation

IV Infusion: Available from CIVAS (KEMH/PCH)

If unavailable prepare the below solution:

Dilution

Dilute 30mg (2.4mL) dobutamine per kg of baby’s weight to 50mL with a compatible fluid

Concentration:

0.5mL/hour = 5 microgram/ kg/ minute

1mL/hour = 10 microgram/ kg/ minute

E.g to prepare an infusion for a 780g infant

Weight = 0.78kg

Dose in Infusion = 30mg x 0.78kg = 23.4mg

Dilute 23.4mg (≈ 1.8mL) to 50mL with a compatible fluid

Administration

Continuous intravenous infusion

Administer via a syringe driver

Compatible Fluids

Sodium Chloride 0.9%, glucose 5%, glucose 10%

Compatibility with heparin

	Sodium Chloride 0.9%	Glucose 5%	Glucose 10%
With heparin	24 hours	24 hours	No information
Without heparin	48 hours	48 hours	24 hours

Y-Site Compatibility

Refer to KEMH Neonatal Medication Guideline: [Y-Site IV Compatibility in Neonates](#)

Side Effects

Common: arrhythmias, hypertension, cutaneous vasodilation, tachycardia at high doses, tachycardia

Serious: tissue ischaemia, hypotension if patient is hypovolemic

Interactions

Incompatible with acyclovir, benzylpenicillin, cefotaxime, sodium bicarbonate, indomethacin, piperacillin/tazobactam

Monitoring

Continuous heart rate, blood pressure and electrocardiogram. When possible monitor cardiac output. Consider monitoring urine output and serum potassium (potential risk of hypokalaemia).

Comments

Solutions of dobutamine may be pink and the colour will increase with time. There is no significant loss of potency over 24 hours. Discard solutions that are hazy or contain particles.

Infusion into a central line is preferred to minimise risk of extravasation.

Related Policies, Procedures & Guidelines

CAHS Clinical Practice Guidelines:

[Cardiac: Neonatal circulation changes/unbalanced circulation](#)

References









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