

Neonatal Drug Guideline

DOBUTAMINE

DESCRIPTION AND INDICATION FOR USE

Dobutamine is a synthetic catecholamine with potent inotropic activity. It preferentially dilates the coronary beds and does not cause vasodilation in renal and mesenteric areas. Dobutamine produces comparatively mild chronotropic, hypertensive and arrhythmogenic effects when compared with dopamine. It is used to increase myocardial contractility, myocardial oxygen consumption and cardiac output.

DOSE

IV INFUSION: 5 to 20 microg/kg/minute (usual starting dose: 5 microg/kg/min)

RECONSTITUTION/DILUTION

Ampoule = 250mg in 20mL (12.5mg/mL)

NOTE: 1000 micrograms = 1 mg

Use only 0.9% sodium chloride or dextrose 5 or 10% as infusion fluids

IV: Withdraw ordered dose and make up to 50 mL (total volume)

Usual order will be as follows:

SINGLE (1) STRENGTH:

DRUG	HOW TO MAKE UP	DOSE EQUIVALENT	DOSE RANGE
Dobutamine	30 mg/kg in 50mL (total volume)	1mL/hr = 10 micrograms/kg/min	5 - 20 micrograms/kg/min

DOUBLE (2) STRENGTH:

DRUG	HOW TO MAKE UP	DOSE EQUIVALENT	DOSE RANGE
Dobutamine	60 mg/kg in 50mL (total volume)	1mL/hr = 20 micrograms/kg/min	5 - 20 micrograms/kg/min

Ref: RWH: Continuous IV Infusion Chart

ROUTE AND METHOD OF ADMINISTRATION

IV INFUSION: Given as a continuous infusion via a syringe pump.

CENTRAL LINE ADMINISTRATION PREFERRED. Only administer via a peripheral line in an extreme emergency when central access is not available.

NOT FOR BOLUS IV, subcut or IM USE

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COMPATIBILITY INFORMATION

Please contact your ward pharmacist for information on drugs or fluids not appearing in the table below. Medications that are not routinely used in the Special Care Nursery have not been included in this table and may be incompatible.

	Compatible	Incompatible
Fluids	Glucose 5%, Glucose 10%, Sodium chloride 0.9%	Sodium bicarbonate
Drugs	Dopamine, Morphine, Ranitidine	Aciclovir, Aminophylline, Digoxin, Flucloxacillin, Frusemide, Phenytoin, Sodium Bicarbonate

SIDE EFFECTS

- Tachycardia, hypertension, arrhythmias
- May cause hypotension if patient hypovolemic (correct hypovolaemia prior to administration)
- Reactions at infusion sites: phlebitis, cutaneous vasodilation, tissue ischaemia and necrosis occurs with infiltration

SPECIAL PRECAUTIONS

- Caution in patients with hypertension
- Hypovolaemia should be corrected before dobutamine administration
- Dobutamine hydrochloride injection solution contains sodium metabisulfite, which may cause allergic type reactions, including anaphylactic symptoms in susceptible people
- Solution may exhibit a pink color with no significant loss of potency over 24 hours

NURSING RESPONSIBILITIES

- Observations/Monitoring:
 - Continuous blood pressure monitoring preferably with an arterial line
 - Continuously monitor heart rate and rhythm
 - Record vital signs hourly
 - Observe and measure urine output
 - Observe IV site for inflammation and extravasation of fluid, remove immediately if occurs
- Carefully prime IV tubing
- Use a syringe pump for administration
- Avoid interruption of infusion
- Do NOT bolus other drugs via the dobutamine infusion
- Check that rate ordered corresponds with dose required (microgram/kg/min)