DOPamine

Read in conjunction with Disclaimer

HIGH RISK Medication

Ensure correct medication is selected, may be confused with DOBUTamine.

Formulary: Restricted
Requires neonatologist or relevant specialist review within 24 hours of initiation.

Presentation	**Ampoule:** 200 mg/5 mL = **40 mg/mL**
Classification	Inotropic agent that increases cardiac output and renal perfusion.
Indication	• Severe shock • Hypotension
Special Considerations	• Contraindicated in patients with phaeochromocytoma. • Vials contain potassium metabisulfite which may very rarely cause allergic reactions in susceptible patients. • Hypovolaemia should be corrected before treatment. ⚠ Use extreme caution when titrating dosage and changing lines/fluids as sudden changes to rates can result in blood pressure fluctuations.
Monitoring	Continuous cardiac monitoring, blood pressure, urine output.
Compatibility	**Fluids:** Sodium chloride 0.9%, glucose 5%, glucose 10%.

Stability with heparin

	Sodium chloride 0.9%	Glucose 5%	Glucose 10%
With heparin	Stable for 24 hours at room temperature.	Stable for 24 hours at room temperature.	No stability information (**avoid use**).
Without heparin	Stable for 48 hours at room temperature.	Stable for 48 hours at room temperature.	Stable for 24 hours at room temperature.

Y-site: Refer to KEMH Neonatal Medication Guideline: Y-Site IV Compatibility in Neonates.

Interactions	**Linezolid:** Inhibits dopamine metabolism, may increase its vasopressor action and risk of hypertension. May need to start with lower dose of dopamine.
Adverse Effects	Tachycardia, bradycardia, arrhythmias, hypertension, hypotension, vasoconstriction, diuresis, extravasation (may cause necrosis and sloughing of surrounding tissue), nausea, vomiting.
Storage & Stability	**Ampoule:** Store at room temperature, below 25ºC. Protect from light.

CONTINUOUS INTRAVENOUS INFUSION			
	Presentation	**Ampoule:** 200 mg/5 mL = **40 mg/mL** *Note: The solution is clear and colourless to pale yellow.* ***Available from CIVAS (KEMH) and PCS (PCH):*** *continuous infusion.*	
	Dosage	**Continuous IV infusion** **Starting dose:** 2 to 5 microg/kg/minute, then titrate dose according to response. **Usual dose:** 2 to 20 microg/kg/minute.	
	Preparation	*Use syringe prepared by pharmacy where available.* **Dilution:** Draw up 30 mg (0.75 mL) of DOPamine per kg of baby's weight and make up to 50 mL total volume with compatible fluid. *Concentration:* **1 mL/hour = 10 microg/kg/minute**	
		Example: To prepare an infusion for a 780 g infant. Weight = 0.78 kg Dose in infusion = 30 mg x 0.78 kg = 23.4 mg Dilute 23.4 mg (of DOPamine up to 50 mL with compatible fluid.	
		Fluid restricted infants • Continuous infusions can be made double, quadruple, etc strength if required for fluid restricted infants. • Ensure medication order is clearly annotated with the strength of the infusion (i.e. "double strength"). • Pay close attention to the change in infusion rate when changing strength.	
	Administration	**IV infusion:** Infuse at prescribed rate via syringe driver pump. DO NOT BOLUS.	

Related Policies, Procedures, and Guidelines

HDWA Mandatory Policies:

MP 0131/20: WA High Risk Medication Policy

Clinical Practice Guidelines:

Congenital Diaphragmatic Hernia (CDH)

Cardiac: Neonatal Circulation Changes / Unbalanced Circulation

Cardiac: Routine Post Operative Care

Pharmaceutical and Medicines Management Guidelines:

CAHS Neonatology – Medication Administration Guideline

High Risk Medicines

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