Dinoprostone (Prostin) FIXED CONCENTRATION 50micrograms in 50ml

Special care with units, calculating doses and administration volumes frequently involved in medication errors, care with similar named drugs.

FORM

Pre-made syringe containing 50micrograms in 50ml
OR
Ampoules containing 1mg/ml dinoprostone (IF NO PRE-MADE SYRINGE)

INDICATION

Maintaining patency of the Ductus Arteriosus

SEEK CONSULTANT ADVICE BEFORE PRESCRIBING. WHERE POSSIBLE, DO NOT START OR STOP THIS TREATMENT WITHOUT FIRST CONSULTING A CARDIOLOGIST.

DOSE RANGE

AGE	DOSE	FREQUENCY	ROUTE
0-6 months	Initially 5**nanograms**/kg/MINUTE Gradually increase as necessary in 5nanogram/kg/minute increments to 20nanograms/kg/minute. Doses of up to 100 nanogram/kg/minute have been used but are associated with an increased incidence of side effects.	Continuous Infusion	IV

PRESCRIPTION OF CONTINUOUS INFUSION

****SPECIAL CARE with PRESCRIBING****.
Flow rates are expressed as ml/**kg**/hour NOT ml/hr

50micrograms in 50ml infusion fluid
This gives:-

- 5nanogram/kg/MINUTE at 0.3ml/**KG**/hr
- 10nanogram/kg/MINUTE at 0.6ml/**KG**/hr

IF NO PRE-MADE SYRINGE IS AVAILABLE PREPARE A SYRINGE OF 50micrograms in 50ml USING A 1mg/ml AMPOULE AS FOLLOWS;

RECONSTITUTION

Already in solution

DILUTION

Initial Dilution:

Dinoprostone Injection (1mg/ml)	0.5ml
Water for Injection.	up to 20ml total

This gives a 25microgram in 1ml solution.

Final Dilution for IV Infusion:

1. Draw up 2ml of DILUTED DINOPROSTONE 25micrograms in 1 ml solution.
2. Make up to 50ml with Glucose 5% or NaCl 0.9%.
3. Mix well
4. This gives a solution containing **50micrograms in 50ml** (1microgram per 1ml)

METHOD OF ADMINISTRATION

By continuous intravenous infusion, flow rate adjusted according to the baby's response (see prescription section for details).

WARNING: DO NOT FLUSH THROUGH A LINE CONTAINING DINOPROSTONE AS IT IS A POTENT DRUG AND MAY CAUSE SERIOUS PROBLEMS.

COMPATIBILITY

Solution compatibility	Sodium chloride 0.45%, sodium chloride 0.9%, Glucose 5%.
Solution incompatibility	No information
IV Line compatibility	No other drugs or fluids in same line at same time
IV Line incompatibility	All other drugs

THIS LIST IS NOT EXHAUSTIVE PLEASE CONTACT PHARMACY FOR FURTHER INFORMATION ON COMPATIBILITY WITH ANY MEDICINES NOT INCLUDED

CAUTIONS, CONTRA-INDICATIONS AND SIDE EFFECTS

See Summary of Product Characteristics and most recent edition of BNF for Children (links below)

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FURTHER INFORMATION

During the infusion of dinoprostone, monitoring of heart rate, blood pressure, respiratory rate and core body temperature are required. Respiratory depression and apnoea can also occur.

In the event of complications such as apnoea, profound bradycardia or severe hypotension consult with senior medical staff.

IV Dinoprostone can cause respiratory depression and apnoea. Facilities for intubation and ventilation must be available and should be considered for babies being transferred to another site with a Dinoprostone infusion.

STORAGE

Dinoprostone is stored in a refrigerator. Once diluted the injection solution is stable for 24 hours at room temperature.

PH

LICENSED STATUS

Not licensed for use in children.

LINKS

BNF for Children / Electronic Medicines Compendium:

APPLICABLE POLICIES

West of Scotland Neonatal Guidelines:

Consult local policy if applicable

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Prepared by:	Anisa Patel	Checked by	WoS Neonatal Pharmacists
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Administer reconstituted solutions immediately.
All vials, ampoules and infusion bags are for single use only unless otherwise stated.
Dose may vary depending on indication, age, renal function, hepatic function, and concomitant medications. This monograph should be used in conjunction with the package insert, BNF for Children, and Summary of Product Characteristics. For further advice contact your clinical pharmacist or pharmacy department.