

NEONATAL West of Scotland Drug Monographs

Parenteral Routes

Neonatal

Milrinone

FORM Ampoule containing 10mg in 10ml

INDICATION Low Cardiac Output

DOSE RANGE

AGE	DOSE	FREQUENCY	ROUTE
0-6 months	0.2 - 0.75micrograms/kg/minute Titrate according to haemodynamic and clinical response.	Continuous infusion	IV

PRESCRIPTION OF CONTINUOUS INFUSION

SINGLE STRENGTH = 3mg/kg in 50ml infusion fluid

This gives:-

- 0.7 microgram/kg/minute at 0.7ml/hour

DOUBLE STRENGTH = 6mg/kg in 50ml infusion fluid

This gives:-

- 0.7 microgram/kg/minute at 0.35ml/hour

RECONSTITUTION

For continuous Infusion

DILUTION

SINGLE STRENGTH

Using Milrinone 10mg in 10ml injection

3 x weight (kg) is the number of ml of 10mg/10ml to be diluted up to 50ml total with infusion fluid (equivalent to **3mg/kg in 50ml**)

DOUBLE STRENGTH

Using Milrinone 10mg in 10ml injection

6 x weight (kg) is the number of ml of 10mg/10ml to be diluted up to 50ml total with infusion fluid (equivalent to **6mg/kg in 50ml**)

METHOD OF ADMINISTRATION

For continuous Infusion

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

NB. May be administered neat via a central line if necessary in fluid restricted patients

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COMPATIBILITY

Solution compatibility	Sodium chloride 0.45%, Sodium chloride 0.9%, Glucose 5%.
Solution incompatibility	No information
IV Line compatibility	Adrenaline, calcium gluconate, dobutamine, dopamine, insulin, metronidazole, midazolam, morphine, noradrenaline, potassium chloride, sodium bicarbonate, sodium nitroprusside, vancomycin, vecuronium. If made in Glucose: aciclovir, isoprenaline
IV Line incompatibility	Furosemide

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

CAUTIONS, CONTRA-INDICATIONS AND SIDE EFFECTS

Cautions:

- Severe obstructive aortic or pulmonary valvular disease or hypertrophic subaortic stenosis
- Uncontrolled atrial fibrillation or flutter
- Renal impairment (reduce dose – refer to Summary of Product Characteristics)
- Hypokalaemia (correct before use)
- Heart failure associated with hypertrophic cardiomyopathy

Contra-indications:

- Hypersensitivity to milrinone or other ingredient
- Severe hypovolaemia

Adverse effects

Chest pain, tremor, bronchospasm, anaphylaxis, rash, ectopic beats, ventricular tachycardia or supraventricular arrhythmias, ventricular fibrillation, Torsades de pointes, hypotension, hypokalaemia, thrombocytopenia, headache, insomnia, nausea and vomiting, abnormal liver function tests, diarrhoea, chills, oliguria, fever, urinary retention, upper and lower limb pain.

FURTHER INFORMATION Monitor blood pressure, heart rate, ECG, fluid and electrolyte status, renal function, platelet count, and hepatic enzymes.

Although rare, if a significant drop in blood pressure occurs this should be corrected with IV fluids.

STORAGE Ampoules stored at room temperature

PH 3.2 – 4

LICENSED STATUS Not licensed for use in children

APPLICABLE POLICIES West of Scotland Neonatal Guidelines

Consult local policy if applicable

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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 terms of reference document prepared by the West of Scotland Pharmacist Network. Information is correct at the time of publication and as per local practice agreement.
For further advice please contact your clinical pharmacist or pharmacy department
