

# Milrinone

**FORM** Ampoule containing 10mg in 10ml

**INDICATION** Low cardiac output

**DOSE RANGE**

AGE	DOSE	FREQUENCY	ROUTE
0-6months	50micrograms/kg over at least 20 minutes.	Loading dose if necessary (see below) *	IV
	0.2-0.75micrograms/kg/minute Titrate according to haemodynamic and clinical response.	Continuous infusion	

\* NB: A loading dose will be necessary if a rapid clinical response is required. The need for a loading dose should be discussed with a consultant prior to administration.

**PRESCRIPTION OF CONTINUOUS INFUSION**

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

This gives:-

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

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

This gives:-

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

**RECONSTITUTION**

Already in solution

**DILUTION**

**SINGLE STRENGTH**

**Using milrinone 10mg in 10ml injection**

3 x wt (kg) is the number of ml of milrinone 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 wt (kg) is the number of ml of milrinone 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

**Loading Dose (if necessary):** over 20 minutes

50microgram/kg can be administered as a separate undiluted bolus over 20 minutes via a central line in fluid restricted patients **OR** given as the infusion (above) as;

0.8ml (50micrograms/kg) - **SINGLE STRENGTH infusion** or

0.4ml (50micrograms /kg) - **DOUBLE STRENGTH infusion**

over 20 minutes.

# West of Scotland NEONATAL IV Drug Monographs

## COMPATIBILITY

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

**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

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

### 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.

**PH** 3.2-4.0

**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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### **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.