**DRUG:** MILRINONE

**PRESENTATION:** Ampoules: 1mg/mL (10mL ampoules)

**ACTION & INDICATION:** Milrinone is a selective phosphodiesterase inhibitor which has positive inotropic and vasodilatory activity. Used in patients with refractory pulmonary hypertension, low cardiac output (especially after cardiac surgery) and in septic shock. There is some evidence for its use in preventing low cardiac output in patients undergoing cardiac surgery. It is for short term treatment only and should generally not be used for longer than 72 hours.

**DOSE:** Any fluid imbalance should be corrected before commencing milrinone. The specified infusion rates are dependant upon preparing the infusion solution exactly as described below.

- **< 30 weeks**
  - **Loading dose:** 135 microgram/kg given over 3 hours (ie 1.5mL/hr for 3 hours) **then**
  - **Maintenance dose:** 0.2 microgram/kg/min (ie 0.4mL/hr)

- **≥ 30 weeks**
  - **Loading dose:** 75 microgram/kg given over 60 minutes (ie 2.5mL/hr for 1 hour) **then**
  - **Maintenance dose:** 0.5 – 0.75 microgram/kg/min (ie 1 – 1.5mL/hr)

**NB** - In both regimens, consider reducing or omitting the loading dose if the patient is at risk of hypotension.

**PREPARATION:** Use solution prepared in Pharmacy if available.

Withdraw 1.5mg of milrinone per kg of baby’s weight (1.5mL/kg) and dilute to 50mL with appropriate infusion fluid.

Diluent: Sodium chloride 0.9%, Glucose 5%

**ADMINISTRATION:** Intravenous infusion

**ADVERSE EFFECTS:** Hypotension, supraventricular and ventricular arrhythmias, hypokalaemia. Thrombocytopenia.

**COMMENTS:** Use with caution in patients who have severe obstructive aortic or pulmonary valvular disease or a history of arrhythmia. Dosage adjustment may be required in patients with impaired renal function. Incompatible with frusemide.

**REFERENCES:**
- Paediatric Pharmacopoeia, 13th ed.
- BNF for Children 2012
- Neofax 2013

**REVIEWED:** September 2013