- **MEDICINAL FORMS** There can be variation in the licensing of different medicines containing the same drug. Forms available from special-order manufacturers include: oral suspension, oral solution

Tablet

CAUTIONARY AND ADVISORY LABELS 21

- **Spironolactone (Non-proprietary)**
  Spironolactone 25 mg Spironolactone 25mg tablets | 28 tablet PoM £1.95 DT = £1.05 | 500 tablet PoM £17.86
  Spironolactone 50 mg Spironolactone 50mg tablets | 28 tablet PoM £9.99 DT = £4.07
  Spironolactone 100 mg Spironolactone 100mg tablets | 28 tablet PoM £2.96 DT = £1.85
- **Aldactone** (Pfizer Ltd)
  Spironolactone 25 mg Aldactone 25mg tablets | 100 tablet PoM £8.89
  Spironolactone 50 mg Aldactone 50mg tablets | 100 tablet PoM £17.78
  Spironolactone 100 mg Aldactone 100mg tablets | 28 tablet PoM £9.96 DT = £1.85 | 100 tablet PoM £35.56

PHOSPHODIESTERASE TYPE-3 INHIBITORS

Enoximone

14-Jul-2018

- **DRUG ACTION** Enoximone is a phosphodiesterase type-3 inhibitor that exerts most effect on the myocardium; it has positive inotropic properties and vasodilator activity.

- **INDICATIONS AND DOSE**

Congestive heart failure, low cardiac output following cardiac surgery

- INITIALLY BY SLOW INTRAVENOUS INJECTION

- Neonate: Loading dose 500 micrograms/kg, followed by (by continuous intravenous infusion) 5–20 micrograms/kg/minute, adjusted according to response, infusion to be given over 24 hours; maximum 24 mg/kg per day.

- Child: Loading dose 500 micrograms/kg, followed by (by continuous intravenous infusion) 5–20 micrograms/kg/minute, adjusted according to response, infusion dose to be given over 24 hours; maximum 24 mg/kg per day

- **UNLICENSED USE** Not licensed for use in children.
- **CAUTIONS** Heart failure associated with hypertrophic cardiomyopathy, stenotic or obstructive valvular disease or other outlet obstruction
- **SIDE-EFFECTS**
- **Common or very common** Headache · hypotension · insomnia
- **Uncommon** Arrhythmias · diarrhoea · dizziness · nausea · vomiting
- **Rare or very rare** Chills · fever · fluid retention · myalgia · oliguria · urinary retention
- **PREGNANCY** Manufacturer advises use only if potential benefit outweighs risk.
- **BREAST FEEDING** Manufacturer advises caution—no information available.
- **RENAL IMPAIRMENT**
  Dose adjustments Consider dose reduction.
- **MONITORING REQUIREMENTS** Monitor blood pressure, heart rate, ECG, central venous pressure, fluid and electrolyte status, renal function, platelet count and hepatic enzymes.
- **DIRECTIONS FOR ADMINISTRATION** Incompatible with glucose solutions. Use only plastic containers or syringes; crystal formation if glass used. Avoid extravasation.

  For *intravenous administration*, dilute to concentration of 2.5 mg/mL with Sodium Chloride 0.9% or Water for Injections; the initial loading dose should be given by slow intravenous injection over at least 15 minutes.
- **PRESCRIBING AND DISPENSING INFORMATION** Phosphodiesterase type-3 inhibitors possess positive inotropic and vasodilator activity and are useful in infants and children with low cardiac output especially after cardiac surgery. Phosphodiesterase type-3 inhibitors should be limited to short-term use because long-term oral administration has been associated with increased mortality in adults with congestive heart failure.
- **PATIENT AND CARER ADVICE**
  Medicines for Children leaflet: Enoximone for pulmonary hypertension www.medicinesforchildren.org.uk/enoximone-pulmonary-hypertension

- **MEDICINAL FORMS** There can be variation in the licensing of different medicines containing the same drug.

Solution for injection

EXCIPIENTS: May contain Alcohol, propylene glycol

- **Perfan** (Carinopharm GmbH)
  Enoximone 5 mg per 1 ml Perfan 100mg/20ml solution for injection ampoules | 10 ampoule PoM Σ (Hospital only)

Milrinone

- **DRUG ACTION** Milrinone is a phosphodiesterase type-3 inhibitor that exerts most effect on the myocardium; it has positive inotropic properties and vasodilator activity.

- **INDICATIONS AND DOSE**

Congestive heart failure, low cardiac output following cardiac surgery, shock

- INITIALLY BY INTRAVENOUS INFUSION

- Neonate: Initially 50–75 micrograms/kg, given over 30-60 minutes, reduce or omit initial dose if at risk of hypotension, then (by continuous intravenous infusion) 30–45 micrograms/kg/hour for 2–3 days (usually for 12 hours after cardiac surgery).

- Child: Initially 50–75 micrograms/kg, given over 30-60 minutes, reduce or omit initial dose if at risk of hypotension, then (by continuous intravenous infusion) 30–45 micrograms/kg/hour for 2–3 days (usually for 12 hours after cardiac surgery)

- **UNLICENSED USE** Not licensed for use in children under 18 years.
- **CONTRA-INDICATIONS** Severe hypovolaemia
- **CAUTIONS** Correct hypokalaemia · heart failure associated with hypertrophic cardiomyopathy, stenotic or obstructive valvular disease or other outlet obstruction
- **SIDE-EFFECTS**
- **Common or very common** Arrhythmia supraventricular (increased risk in patients with pre-existing arrhythmias) · arrhythmias · headache · hypotension
- **Uncommon** Angina pectoris · chest pain · hypokalaemia · thrombocytopenia · tremor
- **Rare or very rare** Anaphylactic shock · bronchospasm · skin eruption
- **Frequency not known** Intraventricular haemorrhage · renal failure
- **PREGNANCY** Manufacturer advises use only if potential benefit outweighs risk.
- **BREAST FEEDING** Manufacturer advises avoid—no information available.
- **RENAL IMPAIRMENT**
  Dose adjustments Use half to three-quarters normal dose and monitor response if estimated glomerular filtration rate less than 50 mL/minute/1.73 m^2.
- **MONITORING REQUIREMENTS**
- Monitor blood pressure, heart rate, ECG, central venous pressure, fluid and electrolyte status, renal function, platelet count and hepatic enzymes.
- Monitor renal function.