

**Prophylaxis of *Pneumocystis jirovecii* (*Pneumocystis carinii*) pneumonia (specialist use only)**

- ▶ BY INHALATION OF NEBULISED SOLUTION
- ▶ Child 5–17 years: 300 mg every 4 weeks, alternatively 150 mg every 2 weeks, using suitable equipment—consult product literature

**Visceral leishmaniasis (specialist use only)**

- ▶ BY DEEP INTRAMUSCULAR INJECTION
- ▶ Child 1–17 years: 3–4 mg/kg once daily on alternate days, maximum total of 10 injections, course may be repeated if necessary

**Cutaneous leishmaniasis (specialist use only)**

- ▶ BY DEEP INTRAMUSCULAR INJECTION
- ▶ Child 1–17 years: 3–4 mg/kg 1–2 times a week until condition resolves

**Trypanosomiasis (specialist use only)**

- ▶ BY DEEP INTRAMUSCULAR INJECTION, OR BY INTRAVENOUS INFUSION
- ▶ Child 1–17 years: 4 mg/kg once daily or on alternate days for a total of 7–10 injections

- **UNLICENSED USE** Not licensed for prevention of pneumocystis pneumonia in children.
- **CAUTIONS** Anaemia · bradycardia · coronary heart disease · history of ventricular arrhythmias · hyperglycaemia · hypertension · hypoglycaemia · hypokalaemia · hypomagnesaemia · hypotension · leucopenia · risk of severe hypotension following administration · thrombocytopenia

- **INTERACTIONS** → Appendix 1: pentamidine

**● SIDE-EFFECTS****GENERAL SIDE-EFFECTS**

- ▶ **Common or very common** Dizziness · hypoglycaemia (can be severe and sometimes fatal) · hypotension (can be severe and sometimes fatal) · local reaction · nausea · rash · taste altered
- ▶ **Rare or very rare** QT interval prolongation
- ▶ **Frequency not known** Pancreatitis acute (can be severe and sometimes fatal)

**SPECIFIC SIDE-EFFECTS**

- ▶ **Common or very common**
- ▶ When used by inhalation Cough · dyspnoea · respiratory disorders
- ▶ With parenteral use Acute kidney injury · anaemia · azotaemia · electrolyte imbalance · flushing · haematuria · hyperglycaemia · induration · leucopenia · localised pain · myopathy · syncope · thrombocytopenia · vomiting
- ▶ **Rare or very rare**
- ▶ With parenteral use Arrhythmia (can be severe and sometimes fatal) · pancreatitis (can be severe and sometimes fatal)
- ▶ **Frequency not known**
- ▶ When used by inhalation Angioedema · appetite decreased · bradycardia · fatigue · renal failure
- ▶ With parenteral use Arrhythmias · perioral hypoesthesia · sensation abnormal · Stevens-Johnson syndrome

- **PREGNANCY** Manufacturer advises avoid unless essential.

- **BREAST FEEDING** Manufacturer advises avoid unless essential—no information available.

- **HEPATIC IMPAIRMENT** Manufacturer advises caution.

**● RENAL IMPAIRMENT**

- ▶ **Dose adjustments** Reduce intravenous dose for pneumocystis pneumonia if creatinine clearance less than 10 mL/minute: in *life-threatening infection*, use 4 mg/kg once daily for 7–10 days, then 4 mg/kg on alternate days to complete course of at least 14 doses; in *less severe infection*, use 4 mg/kg on alternate days for at least 14 doses.

**● MONITORING REQUIREMENTS**

- ▶ Monitor blood pressure before starting treatment, during administration, and at regular intervals, until treatment concluded.
- ▶ Carry out laboratory monitoring according to product literature.

- **DIRECTIONS FOR ADMINISTRATION** Patient should be lying down when receiving drug parenterally. Direct intravenous injection should be avoided whenever possible and **never** given rapidly; intramuscular injections should be deep and preferably given into the buttock. For *intravenous infusion*, reconstitute 300 mg with 3–5 mL Water for Injections (displacement value may be significant), then dilute required dose with 50–250 mL Glucose 5% or Sodium Chloride 0.9%; give over at least 60 minutes.

Powder for injection (dissolved in water for injection) may be used for nebulisation.

- **HANDLING AND STORAGE** Pentamidine isetonate is toxic and personnel should be adequately protected during handling and administration—consult product literature.

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

**Powder for solution for injection**

- ▶ **Pentacarinat** (Sanofi)

**Pentamidine isetonate 300 mg** Pentacarinat 300mg powder for solution for injection vials | 5 vial [POM](#) | £158.86

## 3 Helminth infection

### Helminth infections

**Specialist centres**

Advice on prophylaxis and treatment of helminth infections is available from the following specialist centres:

Birmingham	(0121) 424 0357
Scotland	Contact local Infectious Diseases Unit
Liverpool	(0151) 705 3100
London	0845 155 5000 (treatment)

**Threadworms**

Anthelmintics are effective in threadworm (pinworms, *Enterobius vermicularis*) infections, but their use needs to be combined with hygienic measures to break the cycle of auto-infection. All members of the family require treatment.

Adult threadworms do not live for longer than 6 weeks and for development of fresh worms, ova must be swallowed and exposed to the action of digestive juices in the upper intestinal tract. Direct multiplication of worms does not take place in the large bowel. Adult female worms lay ova on the perianal skin which causes pruritus; scratching the area then leads to ova being transmitted on fingers to the mouth, often via food eaten with unwashed hands. Washing hands and scrubbing nails before each meal and after each visit to the toilet is essential. A bath taken immediately after rising will remove ova laid during the night.

Mebendazole p. 398 is the drug of choice for treating threadworm infection in patients of all ages over 6 months. It is given as a single dose; as reinfection is very common, a second dose may be given after 2 weeks.

**Ascaricides (common roundworm infections)**

Mebendazole is effective against *Ascaris lumbricoides* and is generally considered to be the drug of choice.

Levamisole p. 398 [unlicensed] (available from 'special-order' manufacturers or specialist importing companies) is