- **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

Capsule

- Phenoxybenzamine hydrochloride (Non-proprietary)
  Phenoxybenzamine hydrochloride 10 mg Phenoxybenzamine 10mg capsules | 30 capsule PoM £106.61 DT = £106.61

4.1b Hypertensive crises

Other drugs used for Hypertensive crises Hydralazine hydrochloride, p. 118 · Labetalol hydrochloride, p. 105

VASODILATORS › VASODILATOR ANTIHYPERTENSIVES

Sodium nitroprusside

- **INDICATIONS AND DOSE**

Hypertensive emergencies

- BY CONTINUOUS INTRAVENOUS INFUSION
- Neonate: Initially 500 nanograms/kg/minute, then increased in steps of 200 nanograms/kg/minute (max. per dose 8 micrograms/kg/minute) as required, max. 4 micrograms/kg/minute if used for longer than 24 hours.
- Child: Initially 500 nanograms/kg/minute, then increased in steps of 200 nanograms/kg/minute (max. per dose 8 micrograms/kg/minute) as required, max. 4 micrograms/kg/minute if used for longer than 24 hours

- **UNLICENSED USE** Not licensed for use in the UK.
- **CONTRA-INDICATIONS** Compensatory hypertension · Leber's optic atrophy · severe vitamin B_{12} deficiency
- **CAUTIONS** Hyponatraemia · hypothermia · hypothyroidism · impaired cerebral circulation
- **INTERACTIONS** → Appendix 1: sodium nitroprusside
- **SIDE-EFFECTS** Abdominal pain · anxiety · chest discomfort · dizziness · headache · hyperhidrosis · nausea · palpitations · vomiting

SIDE-EFFECTS, FURTHER INFORMATION Side-effects associated with over rapid reduction in blood pressure: Headache, dizziness, nausea, retching, abdominal pain, perspiration, palpitation, anxiety, retrosternal discomfort—reduce infusion rate if any of these side-effects occur.

Overdose Side-effects caused by excessive plasma concentration of the cyanide metabolite include tachycardia, sweating, hyperventilation, arrhythmias, marked metabolic acidosis (discontinue and give antidote, see cyanide in Emergency treatment of poisoning p. 859).

- **PREGNANCY** Avoid prolonged use—potential for accumulation of cyanide in fetus.
- **BREAST FEEDING** No information available. Caution advised due to thiocyanate metabolite.
- **HEPATIC IMPAIRMENT** Use with caution. Avoid in hepatic failure—cyanide or thiocyanate metabolites may accumulate.
- **RENAL IMPAIRMENT** Avoid prolonged use—cyanide or thiocyanate metabolites may accumulate.
- **MONITORING REQUIREMENTS** Monitor blood pressure (including intra-arterial blood pressure) and blood-cyanide concentration, and if treatment exceeds 3 days, also blood thiocyanate concentration.
- **TREATMENT CESSATION** Avoid sudden withdrawal—terminate infusion over 15–30 minutes.
- **DIRECTIONS FOR ADMINISTRATION** For *continuous intravenous infusion* in Glucose 5%, infuse *via* infusion device to allow precise control. For further details, consult product literature. Protect infusion from light.

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

Powder and solvent for solution for infusion

- Sodium nitroprusside (Non-proprietary)
  Sodium nitroprusside dihydrate 50 mg Sodium nitroprusside 50mg powder and solvent for solution for infusion vials | 1 vial PoM

4.1c Pulmonary hypertension

ANTITHROMBOTIC DRUGS › PROSTAGLANDINS, CARDIOVASCULAR

Epoprostenol

(Prostacyclin)

- **DRUG ACTION** Epoprostenol is a prostaglandin and a potent vasodilator. It is also a powerful inhibitor of platelet aggregation.

- **INDICATIONS AND DOSE**

Persistent pulmonary hypertension of the newborn

- BY CONTINUOUS INTRAVENOUS INFUSION
- Neonate: Initially 2 nanograms/kg/minute (max. per dose 20 nanograms/kg/minute), adjusted according to response, rarely doses up to 40 nanograms/kg/minute are used.

Idiopathic pulmonary arterial hypertension

- BY CONTINUOUS INTRAVENOUS INFUSION
- Child: Initially 2 nanograms/kg/minute, increased if necessary up to 40 nanograms/kg/minute

PHARMACOKINETICS

- Short half-life of approximately 3 minutes, therefore it must be administered by continuous intravenous infusion.

- **UNLICENSED USE** Not licensed for use in children.
- **CONTRA-INDICATIONS** Pulmonary veno-occlusive disease · severe left ventricular dysfunction
- **CAUTIONS** Avoid abrupt withdrawal (risk of rebound pulmonary hypertension/pulmonary hypertensive crisis) · haemorrhagic diathesis
- **INTERACTIONS** → Appendix 1: epoprostenol
- **SIDE-EFFECTS**
- **Common or very common** Abdominal pain · anxiety · arrhythmias · arthralgia · chest discomfort · diarrhoea · flushing · haemorrhage · headache · intracranial haemorrhage · nausea · pain · rash · sepsis · vomiting
- **Uncommon** Dry mouth · hyperhidrosis
- **Rare or very rare** Fatigue · hyperthyroidism · intravenous catheter occlusion · local infection · pallor
- **Frequency not known** Ascites · pulmonary oedema (avoid chronic use if occurs during dose titration) · spleen abnormalities
- **PREGNANCY** Manufacturer advises caution—no information available.
- **BREAST FEEDING** Manufacturer advises avoid—no information available.
- **MONITORING REQUIREMENTS**
- Anticoagulant monitoring required when given with anticoagulants.
- Monitor blood pressure.