

► BY MOUTH

- Neonate: 20–25 micrograms/kg every 1–2 hours, then increased if necessary to 40–50 micrograms/kg every 1–2 hours, if treatment continues for more than 1 week gradually reduce the dose.

- **UNLICENSED USE** Not licensed for use in children.
- **CONTRA-INDICATIONS** Avoid in hyaline membrane disease
- **CAUTIONS** History of haemorrhage
- **SIDE-EFFECTS**
 - Rare or very rare Disseminated intravascular coagulation
 - Frequency not known Asthma · back pain · bronchospasm · cardiac arrest · chills · diarrhoea · dizziness · fever · flushing · headache · hypertension · infection · nausea · uterine rupture · vomiting
- **HEPATIC IMPAIRMENT** Manufacturer advises avoid.
- **RENAL IMPAIRMENT** Manufacturers advise avoid.
- **MONITORING REQUIREMENTS** Monitor arterial oxygenation, heart rate, temperature, and blood pressure in arm and leg; facilities for intubation and ventilation must be immediately available. During infusion of dinoprostone, the newborn requires careful monitoring of heart rate, blood pressure, respiratory rate and core body temperature.
- **DIRECTIONS FOR ADMINISTRATION**
 - With intravenous use For *continuous intravenous infusion*, dilute to a concentration of 1 microgram/mL with Glucose 5% or Sodium Chloride 0.9%.
 - With oral use For administration by *mouth*, injection solution can be given orally; dilute with water.
- **MEDICINAL FORMS** There can be variation in the licensing of different medicines containing the same drug.

Solution for infusion

► Prostin E2 (Pfizer Ltd)

Dinoprostone 1 mg per 1 ml Prostin E2 750micrograms/0.75ml solution for infusion ampoules | 1 ampoule [PoM] £8.52 (Hospital only)

Dinoprostone 10 mg per 1 ml Prostin E2 5mg/0.5ml solution for infusion ampoules | 1 ampoule [PoM] £18.40 (Hospital only)

10 Vascular disease

Peripheral vascular disease

Classification and management

Raynaud's syndrome, a vasospastic peripheral vascular disease, consists of recurrent, long-lasting, and episodic vasospasm of the fingers and toes often associated with exposure to cold. Management includes avoidance of exposure to cold and Smoking cessation p. 304 (if appropriate). More severe symptoms may require vasodilator treatment, which is most often successful in primary Raynaud's syndrome. Nifedipine p. 111 and diltiazem hydrochloride below are useful for reducing the frequency and severity of vasospastic attacks. In very severe cases, where digital infarction is likely, intravenous infusion of the prostacyclin analogue iloprost p. 121 may be helpful.

Vasodilator therapy is not established as being effective for *chilblains*.

Advanced Pharmacy Services

Children with peripheral vascular disease may be eligible for the Medicines Use Review service provided by a community pharmacist. For further information, see *Advanced Pharmacy Services* in Guidance on prescribing p. 1.

CALCIUM-CHANNEL BLOCKERS

F 109

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Diltiazem hydrochloride

● INDICATIONS AND DOSE

Raynaud's syndrome

► BY MOUTH

- Child 12–17 years: 30–60 mg 2–3 times a day

- **UNLICENSED USE** Not licensed for use in Raynaud's syndrome.
- **CONTRA-INDICATIONS** Acute porphyrias p. 624 · cardiogenic shock · left ventricular failure with pulmonary congestion · second- or third-degree AV block (unless pacemaker fitted) · severe bradycardia · sick sinus syndrome · significant aortic stenosis
- **CAUTIONS** Bradycardia (avoid if severe) · first degree AV block · heart failure · prolonged PR interval · significantly impaired left ventricular function
- **INTERACTIONS** → Appendix 1: calcium channel blockers
- **SIDE-EFFECTS**
 - Common or very common Cardiac conduction disorders · constipation · gastrointestinal discomfort · malaise · skin reactions
 - Uncommon Arrhythmias · diarrhoea · insomnia · nervousness · postural hypotension
 - Rare or very rare Dry mouth
 - Frequency not known Angioedema · cardiac arrest · congestive heart failure · depression · extrapyramidal symptoms · fever · gynaecomastia · hepatitis · hyperglycaemia · hyperhidrosis · mood altered · photosensitivity reaction · severe cutaneous adverse reactions (SCARs) · thrombocytopenia · vasculitis
- **Overdose** In overdose, diltiazem has a profound cardiac depressant effect causing hypotension and arrhythmias, including complete heart block and asystole.
- **PREGNANCY** Avoid.
- **BREAST FEEDING** Significant amount present in milk—no evidence of harm but avoid unless no safer alternative.
- **HEPATIC IMPAIRMENT**
 - Dose adjustments** Reduce dose.
- **RENAL IMPAIRMENT**
 - Dose adjustments** Start with smaller dose.

- **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

Modified-release tablet

CAUTIONARY AND ADVISORY LABELS 25

► Diltiazem hydrochloride (Non-proprietary)

Diltiazem hydrochloride 60 mg Diltiazem 60mg modified-release tablets | 84 tablet [PoM] £43.46 DT = £42.82 | 100 tablet [PoM] £50.86–£51.74

► Retalzem (Kent Pharmaceuticals Ltd)

Diltiazem hydrochloride 60 mg Retalzem 60 modified-release tablets | 84 tablet [PoM] £7.43 DT = £42.82

► Tildiem (Sanofi)

Diltiazem hydrochloride 60 mg Tildiem 60mg modified-release tablets | 90 tablet [PoM] £7.96