

**Somatropin (epi) 10 mg per 1 ml** Norditropin SimpleXx 15mg/1.5ml solution for injection cartridges | 1 cartridge [PoM] £319.05 DT = £319.05 [CD4-2]

► **NutropinAq** (Ipsen Ltd)

**Somatropin (rbe) 5 mg per 1 ml** NutropinAq 10mg/2ml solution for injection cartridges | 1 cartridge [PoM] £203.00 DT = £203.00 [CD4-2] | 3 cartridge [PoM] £609.00 DT = £609.00 [CD4-2]

► **Omnitrope** (Sandoz Ltd)

**Somatropin (rbe) 3.333 mg per 1 ml** Omnitrope Pen 5 5mg/1.5ml solution for injection cartridges | 5 cartridge [PoM] £368.74 DT = £368.74 [CD4-2]

► **Omnitrope SurePal** (Sandoz Ltd)

**Somatropin (rbe) 3.333 mg per 1 ml** Omnitrope SurePal 5 5mg/1.5ml solution for injection cartridges | 5 cartridge [PoM] £368.74 DT = £368.74 [CD4-2]

**Somatropin (rbe) 6.667 mg per 1 ml** Omnitrope SurePal 10 10mg/1.5ml solution for injection cartridges | 5 cartridge [PoM] £737.49 DT = £737.49 [CD4-2]

**Somatropin (rbe) 10 mg per 1 ml** Omnitrope SurePal 15 15mg/1.5ml solution for injection cartridges | 5 cartridge [PoM] £1,106.22 DT = £1,106.22 [CD4-2]

► **Saizen** (Merck Serono Ltd)

**Somatropin (rmc) 5.825 mg per 1 ml** Saizen 6mg/1.03ml solution for injection cartridges | 1 cartridge [PoM] £139.08 DT = £139.08 [CD4-2]

**Somatropin (rmc) 8 mg per 1 ml** Saizen 12mg/1.5ml solution for injection cartridges | 1 cartridge [PoM] £278.16 DT = £278.16 [CD4-2] | Saizen 20mg/2.5ml solution for injection cartridges | 1 cartridge [PoM] £463.60 DT = £463.60 [CD4-2]

**Powder and solvent for solution for injection**

EXCIPIENTS: May contain Benzyl alcohol

► **Genotropin** (Pfizer Ltd)

**Somatropin (rbe) 5.3 mg** Genotropin 5.3mg powder and solvent for solution for injection cartridges | 1 cartridge [PoM] £92.15 DT = £92.15 [CD4-2]

**Somatropin (rbe) 12 mg** Genotropin 12mg powder and solvent for solution for injection cartridges | 1 cartridge [PoM] £208.65 DT = £208.65 [CD4-2]

► **Genotropin GoQuick** (Pfizer Ltd)

**Somatropin (rbe) 5.3 mg** Genotropin GoQuick 5.3mg powder and solvent for solution for injection pre-filled pens | 1 pre-filled disposable injection [PoM] £92.15 DT = £92.15 [CD4-2]

**Somatropin (rbe) 12 mg** Genotropin GoQuick 12mg powder and solvent for solution for injection pre-filled pens | 1 pre-filled disposable injection [PoM] £208.65 DT = £208.65 [CD4-2]

► **Genotropin MiniQuick** (Pfizer Ltd)

**Somatropin (rbe) 200 microgram** Genotropin MiniQuick 200microgram powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £24.35 DT = £24.35 [CD4-2]

**Somatropin (rbe) 400 microgram** Genotropin MiniQuick 400microgram powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £48.68 DT = £48.68 [CD4-2]

**Somatropin (rbe) 600 microgram** Genotropin MiniQuick 600microgram powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £73.03 DT = £73.03 [CD4-2]

**Somatropin (rbe) 800 microgram** Genotropin MiniQuick 800microgram powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £97.37 DT = £97.37 [CD4-2]

**Somatropin (rbe) 1 mg** Genotropin MiniQuick 1mg powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £121.71 DT = £121.71 [CD4-2]

**Somatropin (rbe) 1.2 mg** Genotropin MiniQuick 1.2mg powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £146.06 DT = £146.06 [CD4-2]

**Somatropin (rbe) 1.4 mg** Genotropin MiniQuick 1.4mg powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £170.39 DT = £170.39 [CD4-2]

**Somatropin (rbe) 1.6 mg** Genotropin MiniQuick 1.6mg powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £194.74 DT = £194.74 [CD4-2]

**Somatropin (rbe) 1.8 mg** Genotropin MiniQuick 1.8mg powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £219.08 DT = £219.08 [CD4-2]

**Somatropin (rbe) 2 mg** Genotropin MiniQuick 2mg powder and solvent for solution for injection pre-filled disposable devices | 7 pre-filled disposable injection [PoM] £243.42 DT = £243.42 [CD4-2]

► **Humatrope** (Eli Lilly and Company Ltd)

**Somatropin (rbe) 6 mg** Humatrope 6mg powder and solvent for solution for injection cartridges | 1 cartridge [PoM] £108.00 DT = £108.00 [CD4-2]

**Somatropin (rbe) 12 mg** Humatrope 12mg powder and solvent for solution for injection cartridges | 1 cartridge [PoM] £216.00 DT = £208.65 [CD4-2]

**Somatropin (rbe) 24 mg** Humatrope 24mg powder and solvent for solution for injection cartridges | 1 cartridge [PoM] £432.00 DT = £432.00 [CD4-2]

► **Saizen** (Merck Serono Ltd)

**Somatropin (rmc) 8 mg** Saizen 8mg click.easy powder and solvent for solution for injection vials | 1 vial [PoM] £185.44 DT = £185.44 [CD4-2]

► **Zomacton** (Ferring Pharmaceuticals Ltd)

**Somatropin (rbe) 4 mg** Zomacton 4mg powder and solvent for solution for injection vials | 1 vial [PoM] £68.28 DT = £68.28 [CD4-2]

**Somatropin (rbe) 10 mg** Zomacton 10mg powder and solvent for solution for injection vials | 1 vial [PoM] £170.70 DT = £170.70 [CD4-2]

## 8 Sex hormone responsive conditions

### Sex hormones

22-Oct-2019

#### Oestrogens and HRT

Oestrogens are necessary for the development of female secondary sexual characteristics; they also stimulate myometrial hypertrophy with endometrial hyperplasia.

In terms of oestrogenic activity *natural oestrogens* (estradiol p. 799 (oestradiol), estrone (oestrone), and estriol p. 877 (oestriol)) have a more appropriate profile for hormone replacement therapy (HRT) than *synthetic oestrogens* (ethinylestradiol p. 802 (ethinylestradiol) and mestranol). Tibolone p. 803 has oestrogenic, progestogenic and weak androgenic activity.

Oestrogen therapy is given cyclically or continuously for a number of gynaecological conditions. If long-term therapy is required in women with a uterus, a progestogen should normally be added to reduce the risk of cystic hyperplasia of the endometrium (or of endometriotic foci in women who have had a hysterectomy) and possible transformation to cancer.

Oestrogens are no longer used to suppress lactation because of their association with thromboembolism.

#### Hormone replacement therapy

Hormone replacement therapy (HRT) with small doses of an oestrogen (together with a progestogen in women with a uterus) is appropriate for alleviating menopausal symptoms such as vaginal atrophy or vasomotor instability. Oestrogen given systemically in the perimenopausal and postmenopausal period or tibolone given in the postmenopausal period also diminish postmenopausal osteoporosis but other drugs are preferred. Menopausal atrophic vaginitis may respond to a short course of a topical vaginal oestrogen preparation used for a few weeks and repeated if necessary.

Systemic therapy with an oestrogen or drugs with oestrogenic properties alleviates the symptoms of oestrogen deficiency such as vasomotor symptoms. Tibolone combines oestrogenic and progestogenic activity with weak androgenic activity; it is given continuously, without cyclical progestogen.

HRT may be used in women with early natural or surgical menopause (before age 45 years), since they are at high risk of osteoporosis. For early menopause, HRT can be given until the approximate age of natural menopause (i.e. until age 50 years). Alternatives to HRT should be considered if osteoporosis is the main concern.