

- **INTERACTIONS** → Appendix 1: zinc
- **SIDE-EFFECTS**
  - ▶ **Common or very common** Epigastric discomfort (usually transient)
  - ▶ **Uncommon** Leucopenia · sideroblastic anaemia
  - ▶ **Frequency not known** Condition aggravated
- **SIDE-EFFECTS, FURTHER INFORMATION** Transient gastric irritation may be reduced if first dose is taken mid-morning or with a little protein.
- **PREGNANCY**
  - Dose adjustments** Reduce dose to 25 mg 3 times daily adjusted according to plasma-copper concentration and urinary copper excretion.
- **BREAST FEEDING** Manufacturer advises avoid; present in milk—may cause zinc-induced copper deficiency in infant.
- **MONITORING REQUIREMENTS** Monitor full blood count and serum cholesterol.
- **MEDICINAL FORMS** There can be variation in the licensing of different medicines containing the same drug.

**Capsule**

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- ▶ **Wilzin** (Recordati Rare Diseases UK Ltd)

**Zinc (as Zinc acetate) 25 mg** Wilzin 25mg capsules | 250 capsule [PoM] £132.00 DT = £132.00

**Zinc (as Zinc acetate) 50 mg** Wilzin 50mg capsules | 250 capsule [PoM] £242.00 DT = £242.00

**ANTIDOTES AND CHELATORS > COPPER CHELATORS****Trientine dihydrochloride**

03-Dec-2019

● **INDICATIONS AND DOSE****Wilson's disease in patients intolerant of penicillamine**

- ▶ **BY MOUTH USING CAPSULES**

▶ **Adult:** 1.2–2.4 g daily in 2–4 divided doses, adjusted according to response, to be taken before food

**DOSE EQUIVALENCE AND CONVERSION**

- ▶ Doses expressed as trientine dihydrochloride.
- ▶ Capsules and tablets are not interchangeable on a milligram-for-milligram basis due to differences in bioavailability.

**CUPRIOR®****Wilson's disease in patients intolerant of penicillamine**

- ▶ **BY MOUTH USING FILM-COATED TABLETS**

▶ **Adult:** 450–975 mg daily in 2–4 divided doses, adjusted according to response

**DOSE EQUIVALENCE AND CONVERSION**

- ▶ Each tablet contains trientine tetrahydrochloride equivalent to 150 mg of trientine base; doses expressed as trientine base.
- ▶ Tablets and capsules are not interchangeable on a milligram-for-milligram basis due to differences in bioavailability.

- **INTERACTIONS** → Appendix 1: trientine
- **SIDE-EFFECTS**
  - ▶ **Common or very common** Nausea
  - ▶ **Uncommon** Skin reactions
  - ▶ **Frequency not known** Anaemia · gastrointestinal disorders · neurological deterioration in Wilson's Disease
- **PREGNANCY** Teratogenic in *animal* studies—use only if benefit outweighs risk.
  - Monitoring** Monitor maternal and neonatal serum-copper concentrations.
- **BREAST FEEDING** [EvGr] Specialist sources indicate caution—limited information available; effect on copper levels in milk conflicting and impact on infant unknown.



- **DIRECTIONS FOR ADMINISTRATION**
  - ▶ **CUPRIOR®** Tablets can be divided into 2 equal halves.
- **PRESCRIBING AND DISPENSING INFORMATION** Trientine is **not** an alternative to penicillamine for rheumatoid arthritis or cystinuria. Penicillamine-induced systemic lupus erythematosus may not resolve on transfer to trientine.
- **HANDLING AND STORAGE** Manufacturer advises store *capsules* in a refrigerator (2–8°C)—keep in the original container with the silica gel sachet to protect from moisture.
- **NATIONAL FUNDING/ACCESS DECISIONS**
  - Scottish Medicines Consortium (SMC) decisions**
    - SMC No. SMC2222

The *Scottish Medicines Consortium* has advised (November 2019) that trientine tetrahydrochloride (*Cuprior®*) is accepted for use within NHS Scotland for the treatment of Wilson's disease in adults, adolescents and children aged 5 years and older, intolerant to D-penicillamine therapy.

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

**Tablet**

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- ▶ **Cuprior** (GMP-Orphan UK Ltd)

**Trientine tetrahydrochloride 150 mg** Cuprior 150mg tablets | 72 tablet [PoM] £2,725.00

**Capsule**

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- ▶ **Metalite** (Imported (Japan))

**Trientine dihydrochloride 250 mg** Metalite 250mg capsules | 100 capsule [PoM] [X]

- ▶ **Trientine dihydrochloride (Non-proprietary)**

**Trientine dihydrochloride 300 mg** Trientine dihydrochloride 300mg capsules | 100 capsule [PoM] £3,090.00 DT = £3,090.00

## 3 Mineral and trace elements deficiencies

### 3.1 Selenium deficiency

#### Selenium deficiency

**Overview**

Selenium deficiency can occur as a result of inadequate diet or prolonged parenteral nutrition. A selenium supplement should not be given unless there is good evidence of deficiency.

**VITAMINS AND TRACE ELEMENTS**

#### Selenium

● **INDICATIONS AND DOSE****Selenium deficiency**

- ▶ **BY MOUTH, OR BY INTRAMUSCULAR INJECTION, OR BY INTRAVENOUS INJECTION**

▶ **Adult:** 100–500 micrograms daily

- **INTERACTIONS** → Appendix 1: selenium

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

**Tablet**

- ▶ **SelenoPrecise** (Pharma Nord (UK) Ltd)

**Selenium (as L-Selenomethionine) 100 microgram** SelenoPrecise 100microgram tablets | 60 tablet £4.02

**L-Selenomethionine 200 microgram** SelenoPrecise 200microgram tablets | 60 tablet £4.41 | 150 tablet £8.01