1 NAME OF THE MEDICINAL PRODUCT

Ovex/Ovex Family Pack/Boots Threadworm Tablets/ Boots 2 Years Plus Threadworm Tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains Mebendazole 100 mg.

Excipient(s) with known effect:

0.06 mg of orange yellow S (E110).

3.8 mg of sodium.

For the full list of excipients, see Section 6.1.

3 PHARMACEUTICAL FORM

Tablet.

Flat, circular, pale orange tablets inscribed with ‘ME 100’ on one side and 'JANSSEN' on the other.

The half-score is only to facilitate breaking for ease of swallowing and not to divide into equal halves.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

For the treatment of gastrointestinal infestations of *Enterobius vermicularis* (threadworm).

There is no evidence that Ovex is effective in the treatment of cysticercosis.

Official guidelines should be taken into consideration.

4.2 Posology and method of administration

Paediatric population
Tablets may be chewed or swallowed whole. Crush the tablet before giving it to a young child. Always supervise a child while they are taking this medicine.

Ovex Suspension should be considered for patients such as young children who are unable to swallow the tablet.

Posology

Adults and children over 2 years:
Take one tablet.

Tablets may be chewed or swallowed whole. Crush the tablet before giving it to a young child. Always supervise a child while they are taking this medicine. Care should be taken to avoid re-infection and it is strongly recommended that all members of the family are treated at the same time.
It is highly recommended that a second tablet is taken after two weeks, if re-infection is suspected.

Children under 2 years of age:

This medicine has not been extensively studied in children below the age of 2 years. Currently available data are described in section 4.4, 4.8 and 5.2, but no recommendations on a posology can be made. Because of the lack of sufficient safety data, this medicine should not be used in children below the age of 1 year (see section 4.4, 4.8 and 5.2).

Method of administration
Oral

4.3 Contraindications

Ovex is contra-indicated in pregnancy and in patients who have shown hypersensitivity to the active substance or to any of the excipients listed in *section 6.1*.

4.4 Special warnings and precautions for use

Ovex is not recommended in the treatment of children aged under 2 years.

If symptoms do not disappear within a few days, consult your doctor.
A case-control study of a single outbreak of Stevens-Johnson syndrome /toxic epidermal necrolysis (SJS/TEN) suggested a possible association with the concomitant use of metronidazole with mebendazole. Although there are no additional data on this potential interaction, concomitant use of mebendazole and metronidazole should be avoided.

Convulsions in children, including in infants below one year of age, have been reported very rarely during post-marketing experience with Ovex (see section 4.8). Ovex tablets has not been extensively studied in children below the age of 2 years. Ovex tablets should only be given to very young children if their worm infestation interferes significantly with their nutritional status and physical development. Therefore, Ovex tablets should be used in children aged 1-2 years only if the potential benefit justifies the potential risk. Because of the lack of sufficient safety data, Ovex tablets should not be used in children below the age of 1 year.

Glomerulonephritis and agranulocytosis have been very rarely reported with dosages substantially above those recommended and with treatment for prolonged periods of time.

Ovex Suspension should be considered for patients such as young children who are unable to swallow the tablet.

Orange Yellow S (E110) may cause allergic reactions.
This medicine contains less than 1 mmol sodium (23 mg) per tablet, that is to say essentially 'sodium-free'.

4.5 Interaction with other medicinal products and other forms of interaction

Concomitant treatment with cimetidine may inhibit the metabolism of mebendazole in the liver, resulting in increased plasma concentrations of the drug.

Concomitant use of mebendazole and metronidazole should be avoided (see section 4.4).

4.6 Fertility, pregnancy and lactation

Pregnancy

Since Ovex is contra-indicated in pregnancy patients who think they are or may be pregnant should not take this preparation.

Lactation

Limited data from case reports demonstrate that a small amount of mebendazole is present in human milk following oral administration. Therefore, caution should be exercised when Ovex is administered to breast-feeding women.

Fertility

The effect on human fertility has not been evaluated.

4.7 Effects on ability to drive and use machines

Ovex does not affect mental alertness or driving ability.

4.8 Undesirable effects

Throughout this section adverse reactions are reported. Adverse reactions are adverse events that were considered to be reasonably associated with the use of mebendazole based on the comprehensive assessment of the available adverse event information. A causal relationship with mebendazole cannot be reliably established in individual cases. Further, because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in clinical practice.

At the recommended dose, Ovex is generally well tolerated. However, patients with high parasitic burdens when treated with Ovex have manifested diarrhoea and abdominal pain.

The safety of mebendazole was evaluated in 6276 subjects who participated in 39 clinical trials for the treatment of single or mixed parasitic infestations of the gastrointestinal tract. In these 39 clinical trials, no adverse drug reactions (ADRs) occurred in ≥ 1% of mebendazole-treated subjects.

ADRs identified from clinical trials and post-marketing experience with mebendazole are included in Table 1. The displayed frequency categories use the following convention:

Very common (≥ 1/10); Common (≥ 1/100 and < 1/10); Uncommon (≥ 1/1000 and < 1/100); Rare (≥ 1/10,000 and < 1/1000); Very rare (< 1/10,000); Not known (cannot be estimated from the available data).

Table 1: Adverse Drug Reactions Reported in Clinical Trials and Post-Marketing Experience for Mebendazole

System Organ Class	Adverse Drug Reactions			
	Frequency Category			
	Common (≥ 1/100 to < 1/10)	**Uncommon** (≥ 1/1,000 to < 1/100)	**Rare** (≥ 1/10,000 to < 1/1,000)	**Very rare** (< 1/10,000)
Blood and lymphatic system disorders			Neutropenia [b]	Agranulocytosis [a, c]
Immune system disorders			Hypersensitivity including anaphylactic reaction and anaphylactoid reaction [b]	
Nervous system disorders			Convulsions [b] Dizziness [a]	
Gastrointestinal disorders	Abdominal pain [a]	Abdominal discomfort [a] Diarrhoea [a] Flatulence [a]		Nausea [b] Vomiting [b]
Hepatobiliary disorders			Hepatitis [b] Abnormal liver function tests [b]	
Skin and subcutaneous tissue disorders			Rash [a] Toxic epidermal necrolysis [b] Stevens-Johnson syndrome [b] Exanthema [b] Angioedema [b] Urticaria [b] Alopecia [b]	
Renal and urinary disorders				Glomerulonephritis [a, c]

[a] ADR frequency data derived from Clinical Trials or Epidemiological Studies
[b] Adverse reactions reported during post-marketing surveillance
[c] Observed in patients treated for Echinococcosis

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store.

4.9 Overdose

Agranulocytosis and glomerulonephritis are adverse reactions for Echinococcosis treatment for which the dosage is higher and used for prolonged periods of time compared with other indications; therefore, these are expected symptoms of overdose for non-Echinococcosis indications (see Section 4.8).

Signs and symptoms
In the event of accidental overdosage, abdominal cramps, nausea, vomiting and diarrhoea may occur.

Treatment
There is no specific antidote. Activated charcoal may be given if considered appropriate.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic classification: Anthelmintic for oral administration, benzimidazole derivatives

ATC code: P02CA01

In vitro and *in vivo* work suggests that mebendazole blocks the uptake of glucose by adult and larval forms of helminths, in a selective and irreversible manner. Inhibition of glucose uptake appears to lead to endogenous depletion of glycogen stores within the helminth. Lack of glycogen leads to decreased formation of ATP and ultrastructural changes in the cells.

There is no evidence that Ovex is effective in the treatment of cysticercosis.

5.2 Pharmacokinetic properties

Paediatric population:
Limited data of the mebendazole concentrations in plasma are available in children and adolescents 1 to 16 years of age. These data do not indicate substantially higher systemic exposure to mebendazole in subjects 3 to 16 years of age compared to adults.
In subjects 1 to <3 years of age, systemic exposure is higher than in adults due to higher mg/kg dose relative to adults.

Absorption
Following oral administration, approximately <10% of the dose reaches the systemic

circulation, due to incomplete absorption and to extensive pre-systemic metabolism (first-pass effect). Maximum plasma concentrations are generally seen 2 to 4 hours after administration. Dosing with a high fat meal leads to a modest increase in the bioavailability of mebendazole.

Distribution
The plasma protein binding of mebendazole is 90 to 95%. The volume of distribution is 1 to 2 L/kg, indicating that mebendazole penetrates areas outside the vascular space. This is supported by data in patients on chronic mebendazole
therapy (e.g., 40 mg/kg/day for 3-21 months) that show drug levels in tissue.

Biotransformation
Orally administered mebendazole is extensively metabolized primarily by the liver. Plasma concentrations of its major metabolites (amino and hydroxylated amino forms of mebendazole) are substantially higher than those of mebendazole. Impaired hepatic function, impaired metabolism, or impaired biliary elimination may lead to higher plasma levels of mebendazole.

Elimination
Mebendazole, the conjugated forms of mebendazole, and its metabolites likely undergo some degree of enterohepatic recirculation and are excreted in the urine and bile. The apparent elimination half-life after an oral dose ranges from 3 to 6 hours in most patients.

Steady-state Pharmacokinetics
During chronic dosing (e.g., 40 mg/kg/day for 3-21 months), plasma concentrations of mebendazole and its major metabolites increase, resulting in approximately 3-fold higher exposure at steady-state compared to single dosing.

5.3 Preclinical safety data

Acute oral toxicity of mebendazole in a number of species is low with a large margin of safety. Chronic oral toxicity studies in rats at 40 mg/kg/day and above, showed altered liver weights with some slight centrilobular swelling and hepatocellular vacuolation, and altered testicular weights with some tubular degeneration, desquamation and marked inhibition of spermatogenic activity.

In genotoxicity studies mebendazole was aneugenic in mammalian somatic cells above a threshold plasma concentration of 115 ng/mL, but had no mutagenic or clastogenic activity. In limited long term studies in mice and rats no carcinogenic effects were seen.

Mebendazole has shown embryotoxic and teratogenic activity in pregnant rats and mice at oral doses of 10 mg/kg/day and above and in rats at a single dose of 10 mg/kg, approximately equivalent to the human dose of 100 mg on a body surface area (mg/m^2) basis.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Microcrystalline cellulose
Sodium starch glycollate
Talc
Maize starch
Sodium saccharin
Magnesium stearate
Cottonseed oil - hydrogenated
Orange flavour
Colloidal anhydrous silica
Sodium laurylsulfate
Orange yellow S (E110)
Purified water*
2-propanol*

* not present in the final product

6.2 Incompatibilities

None known.

6.3 Shelf life

3 years.

6.4 Special precautions for storage

This medicinal product does not require any special storage conditions

6.5 Nature and contents of container

Blister pack: PVC genotherm glass clear and aluminium foil with heat seal lacquer.

Pack size: 1, 2, 4 and 8 tablets.

Not all pack sizes may be marketed.

6.6 Special precautions for disposal

No special requirements.

Any unused product or waste material should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

McNeil Products Limited

50 – 100 Holmers Farm Way

High Wycombe

Buckinghamshire

HP12 4EG

UK

8 MARKETING AUTHORISATION NUMBER(S)

PL 15513/0314

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

01/08/2008

10 DATE OF REVISION OF THE TEXT

10/12/2025