SUMMARY OF PRODUCT CHARACTERISTICS

1. Name of the medicinal product

Albetap Suspension (Albendazole Oral Suspension 200mg/5ml)

2. Qualitative and quantitative composition

Each 5ml contains:
Albendazole BP 200mg
Flavoured Syrupy Base q.s.

3. Pharmaceutical form
Suspension

4. Clinical particulars

4.1 Therapeutic indications

Albendazole is an anthelmintic exhibiting vermicidal, ovicidal and larvicidal activity, and is effective in the treatment of the following intestinal and tissue parasites:

Roundworm (Ascaris lumbricoides)

Whip worm (Trichuris trichuria)

Pinworm/threadworm (Enterobious vermicularis)

Hookworm (Ancylostoma duodenale and Necator americanus)

Srongyloides stercoralis

Taenia solium

Taenia saginata

Opisthorchis viverrini

Also hydatid cysts

4.2 Posology and method of administration

Age 12 to 24 months: 5 mL Albendazole oral suspension.

Adults & Children (Over two years): 10 mL albendazole suspension as a single dose in cases of Enterobius vermicularis, Trichuris trichiura, Ascaris lumbricoides, Ancylostoma duodenale and Necator americanus. In cases of strongyloidiasis or taeniasis, 10 ml albendazole suspension as a single dose should be given for three consecutive days.

Giardiasis: 10 ml albendazole suspension once daily for five days.

4.3 Contraindications

Albendazole is contraindicated in pregnancy and in patients who have shown hypersensitivity to the product or any components.

4.4 Special warnings and precautions for use

Patients being treated for neurocysticercosis should receive appropriate steroid and

anticonvulsant therapy as required. Oral or intravenous corticosteroids should be considered to prevent cerebral hypertensive episodes during the first week of anticysticeral therapy.
Cysticercosis may, in rare cases, involve the retina. Before initiating therapy for neurocysticercosis, the patient should be examined for the presence of retinal lesions. If such lesions are visualized, the need for anticysticeral therapy should be weighed against the possibility of retinal damage caused by albendazole-induced changes to the retinal lesion.
Information for Patients
Patients should be advised that:
Albendazole may cause fetal harm, therefore, women of childbearing age should begin treatment after a negative pregnancy test.
Women of childbearing age should be cautioned against becoming pregnant while on albendazole or within 1 month of completing treatment.
During albendazole therapy, because of the possibility of harm to the liver or bone marrow, routine (every 2 weeks) monitoring of blood counts and liver function tests should take place.
Albendazole should be taken with food.

4.5 Interaction with other medicinal products and other forms of interaction

Dexamethasone
Steady-state trough concentrations of albendazole sulfoxide were about 56% higher when 8 mg dexamethasone was coadministered with each dose of albendazole (15 mg/kg/day) in 8 neurocysticercosis patients.
Praziquantel
In the fed state, praziquantel (40 mg/kg) increased mean maximum plasma concentration and area under the curve of albendazole sulfoxide by about 50% in healthy subjects (n = 10) compared with a separate group of subjects (n = 6) given albendazole alone. Mean Tmax and mean plasma elimination half-life of albendazole sulfoxide were unchanged. The pharmacokinetics of praziquantel were unchanged following coadministration with albendazole (400 mg).
Cimetidine
Albendazole sulfoxide concentrations in bile and cystic fluid were increased (about 2-fold) in hydatid cyst patients treated with cimetidine (10 mg/kg/day) (n = 7) compared with albendazole (20 mg/kg/day) alone (n = 12). Albendazole sulfoxide plasma concentrations were unchanged 4 hours after dosing.

Theophylline

The pharmacokinetics of theophylline (aminophylline 5.8 mg/kg infused over 20 minutes) were unchanged following a single oral dose of albendazole (400 mg) in 6 healthy subjects.

4.6 Fertility, pregnancy and lactation

Teratogenic Effects

Pregnancy Category C. Albendazole has been shown to be teratogenic (to cause embryotoxicity and skeletal malformations) in pregnant rats and rabbits. The teratogenic response in the rat was shown at oral doses of 10 and 30 mg/kg/day (0.10 times and 0.32 times the recommended human dose based on body surface area in mg/m2, respectively) during gestation days 6 to 15 and in pregnant rabbits at oral doses of 30 mg/kg/day (0.60 times the recommended human dose based on body surface area in mg/m2) administered during gestation days 7 to 19. In the rabbit study, maternal toxicity (33% mortality) was noted at 30 mg/kg/day. In mice, no teratogenic effects were observed at oral doses up to 30 mg/kg/day (0.16 times the recommended human dose based on body surface area in mg/m2), administered during gestation days 6 to 15.

There are no adequate and well-controlled studies of albendazole administration in pregnant women. Albendazole should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

4.7 Effects on ability to drive and use machines

Albendazole has no influence on the ability to drive and use machines

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 Albendazole based on the comprehensive assessment of the available adverse event information. A causal relationship with Albendazole 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.

The safety of Albendazole 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 treated subjects.

ADRs identified from clinical trials and post-marketing experience with Albendazole are

included in Table 1. The displayed frequency categories use the following convention:

Very common ≥ 1/10 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 Unknown frequency (cannot be estimated based on the available data).

Table 1: Adverse Drug Reactions Reported in Clinical Trials and Post-marketing Experience for Albendazole

System Organ Class	**Adverse Drug Reactions**		
	Frequency Category		
	Common (≥ 1/100 to < 1/10)	**Uncommon** (≥ 1/1000 to < 1/100)	**Rare** (≥1/10,000 to <1/1000)
Blood and lymphatic system disorders			Neutropenia[b]
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]	
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]

a) ADR frequency data derived from Clinical Trials or Epidemiological Studies

4.9 Overdose

Gastric lavage may be performed in the first two to three hours after ingestion. Symptomatic treatment and general supportive measures should be undertaken as required.

Significant toxicity and mortality were shown in male and female mice at doses exceeding 5,000 mg/kg; in rats, at estimated doses between 1,300 and 2,400 mg/kg; in hamsters, at doses exceeding 10,000 mg/kg; and in rabbits, at estimated doses between 500 and 1,250 mg/kg. In the animals, symptoms were demonstrated in a dose-response relationship and included diarrhea, vomiting, tachycardia, and respiratory distress.

One overdosage has been reported with Albendazole in a patient who took at least 16 grams over 12 hours. No untoward effects were reported. In case of overdosage, symptomatic therapy (e.g., gastric lavage and activated charcoal) and general supportive measures are recommended.

5. Pharmacological Properties

5.1 Pharmacodynamic properties

Albendazole is a broad-spectrum anthelmintic. The principal mode of action for albendazole is by its inhibitory effect on tubulin polymerization which results in the loss of cytoplasmic microtubules.

Albendazole causes degenerative alterations in the tegument and intestinal cells of the worm by binding to the colchicine-sensitive site of tubulin, thus inhibiting its polymerization or assembly into microtubules. The loss of the cytoplasmic microtubules leads to impaired uptake of glucose by the larval and adult stages of the susceptible parasites, and depletes their glycogen stores. Degenerative changes in the endoplasmic reticulum, the mitochondria of the germinal layer, and the subsequent release of lysosomes result in decreased production of adenosine triphosphate (ATP), which is the energy required for the survival of the helminth. Due to diminished energy production, the parasite is immobilized and eventually dies.

5.2 Pharmacokinetic properties

Absorption and Metabolism:

Albendazole is poorly absorbed from the gastrointestinal tract due to its low aqueous solubility. Albendazole concentrations are negligible or undetectable in plasma as it is rapidly converted to the sulfoxide metabolite prior to reaching the systemic circulation. The systemic anthelmintic activity has been attributed to the primary metabolite, albendazole sulfoxide. Oral bioavailability appears to be enhanced when albendazole is coadministered with a fatty meal (estimated fat content 40 g) as evidenced by higher (up to 5-fold on average) plasma concentrations of albendazole sulfoxide as compared to the fasted state.

Maximal plasma concentrations of albendazole sulfoxide are typically achieved 2 to 5 hours after dosing and are on average 1.31 mcg/mL (range 0.46 to 1.58 mcg/mL) following oral doses of albendazole (200 mg) in 6 hydatid disease patients, when administered with a fatty meal. Plasma concentrations of albendazole sulfoxide increase in a dose-proportional manner over the therapeutic dose range following ingestion of a fatty meal (fat content 43.1 g). The mean apparent terminal elimination half-life of albendazole sulfoxide typically ranges from 8 to 12 hours in 25 normal subjects, as well as in 14 hydatid and 8 neurocysticercosis patients. Following 4 weeks of treatment with albendazole (200 mg three times daily), 12 patients' plasma concentrations of albendazole sulfoxide were approximately 20% lower than those observed during the first half of the treatment period, suggesting that albendazole may induce its own metabolism.

Distribution:

Albendazole sulfoxide is 70% bound to plasma protein and is widely distributed throughout the body; it has been detected in urine, bile, liver, cyst wall, cyst fluid, and cerebral spinal fluid (CSF). Concentrations in plasma were 3- to 10-fold and 2- to 4-fold higher than those simultaneously determined in cyst fluid and CSF, respectively. Limited in vitro and clinical data suggest that albendazole sulfoxide may be eliminated from cysts at a slower rate than observed in plasma.

Metabolism and Excretion:

Albendazole is rapidly converted in the liver to the primary metabolite, albendazole sulfoxide, which is further metabolized to albendazole sulfone and other primary oxidative metabolites that have been identified in human urine. Following oral administration, albendazole has not been detected in human urine. Urinary excretion of albendazole sulfoxide

is a minor elimination pathway with less than 1% of the dose recovered in the urine. Biliary elimination presumably accounts for a portion of the elimination as evidenced by biliary concentrations of albendazole sulfoxide similar to those achieved in plasma.

5.3 Preclinical safety data

No relevant information additional to that contained elsewhere in the Summary of Product Characteristics.

6. Pharmaceutical particulars

6.1 List of excipients

Sodium Propryl Hydroxybenzaote

Soidum Methyl Hydroxybenzaote

Liquid Essence Orane Sweet

Colour Sunset Yelllow Supra ISI

Xanthum Gum

Polysorbate 80

Sorbitol

Sacchrine Sodium

Sodium Benazote

Purified Water

Glycerol

Dissodium Edetate

Colloidal Anhydrous Silica

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

36 Months

6.4 Special precautions for storage

Store below 30°C. Protect from light. Keep out of the reach and sight of children.

6.5 Nature and contents of container

10ml suspension bottle packed in a unit carton

6.6 Special precautions for disposal and other handling

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

7. Marketing authorisation holder

Brawn Laboratories Limited.

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8. Marketing authorisation number(s)

05570/4557/NMR/2017

9. Date of first authorisation/renewal of the authorisation

Feb 15, 2021

10. Date of revision of the text

Feb 15, 2021