

## **1. NAME OF THE MEDICINAL PRODUCT**

Avrocid Suspension

## **2. QUALITATIVE AND QUANTITATIVE COMPOSITION**

Each 5 ml of oral suspension contains:

Dried Aluminium Hydroxide Gel 468.1mg

Magnesium Hydroxide 100mg

Activated Methylpolysiloxane (Simethicone) 125mg

For a full list of excipients, see section 6.1.

## **3. PHARMACEUTICAL FORM**

Oral suspension

A yellow coloured, flavoured suspension.

## **4. Clinical particulars**

### **4.1 Therapeutic indications**

Avrocid Suspension reduces hyperacidity and protects the gastric mucosa from the irritant effect of excessive gastric acid secretion.

It is a protective antacid and defatulant used in peptic ulcer, dyspepsia, heartburn, reflux oesophagitis, gastritis, hyperacidity, flatulence and discomfort due to excess stomach gas.

### **4.2 Posology and method of administration**

#### Posology

*Adults and children over 12 years (including the elderly):*

10ml 3 to 4 times daily

*Children (6 – 12 years):*

5ml 3 to 4 times daily

To be taken between meals and at bed time not exceeding 90ml in a 24-hour period.

*Paediatric population:*

Not recommended for children under 12 years.

#### Method of administration

For oral administration.

Shake the bottle before use.

### **4.3 Contraindications**

Avrocid suspension is contraindicated in patients with:

- Hypersensitivity to the active substances or to any of the excipients listed in section 6.1.
- Patients who are severely debilitated or suffering from renal insufficiency, or if there is severe abdominal pain and/or the possibility of bowel obstruction.
- Avrocid suspension is contra indicated in Appendicitis and hypophosphataemia

### **4.4 Special warnings and precautions for use**

Aluminium hydroxide may cause constipation and magnesium salts overdose may cause hypomotility of the bowel; large doses of this product may trigger or aggravate intestinal obstruction and ileus in patients at higher risk such as those with renal impairment, or the elderly.

Aluminium hydroxide is not well absorbed from the gastrointestinal tract, and systemic effects are therefore rare in patients with normal renal function. However, excessive doses or long-term use, or even

normal doses in patients with low-phosphorus diets may lead to phosphate depletion (due to aluminium-phosphate binding) accompanied by increased bone resorption and hypercalciuria with the risk of osteomalacia. Medical advice is recommended in case of long-term use or in patients at risk of phosphate depletion.

In patients with renal impairment, plasma levels of both aluminium and magnesium increase. In these patients, a long-term exposure to high doses of aluminium and magnesium salts may lead to dementia, microcytic anemia.

Aluminium hydroxide may be unsafe in patients with porphyria undergoing hemodialysis.

Prolonged use with antacids may mask symptoms of more serious diseases, such as gastrointestinal ulceration or cancer.

#### **4.5 Interaction with other medicinal products and other forms of interaction**

Antacids are known to interfere with the absorption of drugs such as levothyroxine, rifampicin and rosuvastatin.

Aluminium hydroxide may form complexes with certain drugs, e.g. digoxin and vitamins, resulting in decreased absorption. This should be borne in mind when concomitant administration is considered.

Because of the aluminium content, Avrocid should not be concomitantly administered with tetracycline containing antibiotics or any tetracycline salts.

Urine alkalinisation secondary to administration of magnesium hydroxide may modify excretion of some drugs; thus, increased excretion of salicylates has been seen.

Concomitant use with quinidines may increase the serum levels of quinidine and lead to quinidine and lead to quinidine overdose.

Aluminium-containing antacids may prevent the proper absorption of H<sub>2</sub> antagonists, atenolol, cefdinir, cefpodoxime, hydroxychloroquine, chloroquine, cyclines, diflunisal, digoxin, diphosphonates, ethambutol, fluoroquinolones, sodium fluoride, glucocorticoids, indometacin, isoniazide, kayexalate, ketoconazole, lincosamides, metoprolol, neuroleptics phenothiazines, penicillamine, propranolol, iron salts. Staggering the administration times of the interacting drug and the antacid by at least 2 hours (4 hours for the fluoroquinolones) will often help avoid undesirable drug interactions.

##### Polystyrene sulfonate (Kayexalate)

Caution is advised when used concomitantly with polystyrene sulfonate (Kayexalate) due to the potential risks of reduced effectiveness of the resin in binding potassium, of metabolic alkalosis in patients with renal failure (reported with aluminium hydroxide and magnesium hydroxide), and of intestinal obstruction (reported with aluminium hydroxide).

Aluminium hydroxide may result in increased aluminium levels, especially in patients with renal impairment.

#### **4.6 Pregnancy and Lactation**

##### Pregnancy

There are no or limited amount of data from the use of aluminium hydroxide and magnesium hydroxide in pregnant women. Animal studies are insufficient with respect to reproductive toxicity (see section 5.3). Avrocid is not recommended during the first trimester of pregnancy and in women of childbearing potential not using contraception. Caution should be exercised when prescribing to pregnant and lactating women. Avrocid should be used during pregnancy only if the potential benefits to the mother outweigh the potential risks, including those to the foetus.

##### Breast-feeding

No effects on the breastfed newborns/infant are anticipated since the systemic exposure of the breast-feeding woman to aluminium hydroxide and magnesium hydroxide is negligible. Because of the limited maternal absorption, when used as recommended, aluminium hydroxide and magnesium salt combinations are considered compatible with lactation.

#### Fertility

No fertility data is available.

#### **4.7 Effects on ability to drive and use machines**

None stated.

#### **4.8 Undesirable effects**

Side effects are uncommon at recommended doses

The following CIOMS frequency rating is used, when applicable:

Very common ( $\geq 1/10$ ), common ( $\geq 1/100$  to  $< 1/10$ ), uncommon ( $\geq 1/1,000$  to  $< 1/100$ ), rare ( $\geq 1/10,000$  to  $< 1/1,000$ ), very rare ( $< 1/10,000$ ), not known (cannot be estimated from available data)

#### Immune system disorders

*Not known:* hypersensitivity reactions, such as pruritus, urticaria, angioedema and anaphylactic reactions.

#### Gastrointestinal disorders

Gastrointestinal side effects are uncommon.

*Uncommon:* diarrhoea or constipation (see Section 4.4 Special warnings and precautions for use).

#### Metabolism and nutrition disorders

*Very rare:* hypermagnesemia including observations after prolonged administration of magnesium hydroxide to patients with renal impairment.

#### Frequency not known:

- hyperaluminemia,
- hypophosphatemia, in prolonged use or at high doses or even normal doses of the product in patients with low-phosphorus diets or in infants less than 2 years, which may result in increased bone resorption, hypercalciuria, osteomalacia (see Section 4.4 Special warnings and precautions for use).

#### **4.9 Overdose**

##### SIGNS AND SYMPTOMS

Reported symptoms of acute overdose with aluminium hydroxide and magnesium salts combination include diarrhea, abdominal pain, vomiting.

Large doses of this product may trigger or aggravate intestinal obstruction and ileus in patients at risk (see Section 4.4 Special warnings and precautions for use)

##### MANAGEMENT

Aluminium and magnesium are eliminated through urinary route; treatment of acute overdose consists of administration of IV Calcium Gluconate, rehydration and forced diuresis. In case of renal function deficiency, haemodialysis or peritoneal dialysis is necessary.

Serious symptoms are unlikely following overdose. Discontinue medication and correct fluid deficiency if necessary.

### **5. PHARMACOLOGICAL PROPERTIES**

#### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: Antacids; aluminium compound combinations

ATC code: A02AB10

Avrocid is a balanced mixture of two antacids and simethicone: aluminium hydroxide is a slow-acting antacid and magnesium hydroxide is a fast-acting one. The two are frequently combined in antacids mixtures. Aluminium hydroxide on its own is astringent and may cause constipation.

This effect is balanced by the effect of magnesium hydroxide, which, in common with other magnesium salts, may cause diarrhoea. Gastro-intestinal side effects are thus rare with Avrocid and this makes it especially suitable when long term therapy is necessary.

Simethicone is a surface-active agent included to disperse form. This reduces gastrooesophageal reflux. It does not have antacid properties.

## **5.2 Pharmacokinetic properties**

The absorption of aluminium and magnesium from antacids is small. Aluminium hydroxide is slowly converted to aluminium chloride in the stomach. Some absorption of soluble aluminium salts occurs in the gastro-intestinal tract with urinary excretion.

Any absorbed magnesium is likewise excreted in the urine. Aluminium containing antacids should not be administered to patients with renal impairment where increased plasma concentration may occur.

Dimethicone is not absorbed from the gastro intestinal tract, it has no known systemic side effects and its safety has been well documented.

## **5.3 Preclinical safety data**

Not relevant.

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Sucrose  
Sodium Carboxymethyl Cellulose  
Bronopol  
Polysorbate 80  
FD & C Yellow No. 5  
Peppermint Oil  
Pineapple Flavour  
Propylene Glycol  
Sorbitol Solution  
Deionised Water

### **6.2 Incompatibilities**

Not applicable.

### **6.3 Shelf life**

3 years.

### **6.4 Special precautions for storage**

Store below 30°C.

Protect from light. Keep tightly closed.

### **6.5 Nature and contents of container**

Amber bottles, with aluminium Ropp Screw cap and a calibrated measuring cup.

Pack size: 200ml.

### **6.6 Special precautions for disposal**

No special requirements.

## **7 APPLICANT/MANUFACTURER**

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