SUMMARY PRODUCT CHARACTERISTICS

1. Name of the product:

MYCODEAL SOLUTION.

2. Qualitative and quantitative composition:

Bifonazole 1% w/v
Each 15ml contains 0.15g Bifonazole

Excipients with known effect:
Ethanol BP (13.5mls)

For a full list of excipients, see section 6.1.

3. Pharmaceutical form:

Topical Solution
A clear and colourless liquid free from any visible impurities.

4. Clinical particulars:

4.1 Therapeutic indications

Bifonazole is a broad-spectrum antifungal agent used to treat fungal skin infections, such as dermatomycosis for instance athlete's foot.
The preparation is not for vaginal use.

4.2 Posology and method of administration

The solution should be thinly applied and rubbed into the affected areas once daily, preferably at night before retiring, for two to three weeks.
The affected areas should be washed and dried thoroughly before the solution is applied. A physician or pharmacist should be consulted if symptoms do not improve within seven days.

4.3 Contraindications

History of hypersensitivity to imidazole antifungal agents or any of the excipients. Should not be used in treatment of infants with nappy rash. Should not be used in treatment of nail and scalp infections.

4.4 Special warnings and precautions for use

If unsure of diagnosis, the patient should seek the advice of a doctor or pharmacist before using this product.
Excipients
Ethanol: It may cause burning sensation on damaged skin.
In neonates (pre-term and term newborn infants), high concentrations of ethanol may cause severe local reactions and systemic toxicity due to significant absorption through immature skin (especially under occlusion). This product should not be used near an open flame, lit cigarette or some devices (e.g. hairdryers).

4.5 Interaction with other medicinal products and other forms of interaction

None known for the topical form of bifonazole.

4.6 Fertility, pregnancy and lactationPregnancy Pregnancy

There are no clinical data from the use of bifonazole in pregnant women. Studies in animals have shown reproductive toxicity at high oral doses (see section 5.3) however these effects should not be anticipated at the low systemic exposures observed following topical bifonazole administration (see section 5.2).
Bifonazole should only be used during pregnancy after an evaluation by a doctor of the benefit to the patient and the risk to the fetus.

Lactation

It is unknown whether bifonazole is excreted in human breast milk after topical application. Bifonazole is excreted in milk after intravenous administration in animals (see section 5.3). A risk to the suckling child cannot be excluded. A decision must be made whether to discontinue breast-feeding or to discontinue bifonazole therapy taking into account the benefit of breast-feeding for the child and the benefit of therapy for the woman.
During the lactation period bifonazole should not be applied to the chest area.

Fertility

Preclinical studies gave no evidence that bifonazole can impair male or female fertility (see section 5.3).

4.7 Effects on ability to drive and use machines

None known.

4.8 Undesirable effects

- Immune system disorders

Very rarely, systemic hypersensitivity reactions may occur.
The following adverse drug reactions are observed on spontaneous reports; thus the frequency of individual events is not known (cannot be estimated from data).

- General disorders and administration site conditions
- Administration site pain, peripheral oedema (at administration site)
- Skin and subcutaneous tissue disorders

Contact dermatitis, allergic erythema, pruritus, rash, urticaria, blister, skin exfoliation, eczema, dry skin, skin irritation, skin maceration, skin burning sensation
These side effects are reversible after discontinuation of the treatment.

Reporting of suspected adverse reactions

Healthcare professional are requested to report any suspected adverse reactions via pharmacy and poisons board, Pharmacovigilance Reporting System (PvERS) https://pv.pharmacyboardkenya.org.

4.9 Overdose

The possibility of an overdose associated with topical application is highly unlikely.

In the event of accidental oral ingestion, routine measures such as gastric lavage should be performed as soon as possible after ingestion.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Antifungals for
Topical Use ATC Code. D01AC10

Mechanism of action

Bifonazole is a broad spectrum imidazole antifungal agent. It is effective against dermatophytes, yeasts, moulds and other fungi.

It works by inhibiting the production of a substance called ergosterol, which is an essential component of fungal cell membranes. It acts to destabilize the fungal cyctochrome p450 51 enzyme (also known as Lanosterol 14-alpha demethylase). This is vital in the cell membrane structure of the fungus. Its inhibition leads to cell lysis. The disruption in production of ergosterol disrupts the cell membrane and causes holes to appear. The cell membranes of fungi are vital for their survival. They keep unwanted substances from entering the cells and stop the contents of the cells from leaking out. As bifonazole causes holes to appear in the cell membranes, essential constituents of the fungal cells can leak out. This kills the fungi.

5.2 Pharmacokinetic properties

There is very low absorption following topical administration (0.6% of an applied dose). In cases of skin lesions absorption is increased (2.5%). Bifonazole is rapidly metabolised in the liver and its elimination half-life is 1-2 hours with elimination of the metabolites being via urine and bile (faeces).

5.3 Preclinical safety data

Toxicological studies showed good local tolerability of topical formulations. With bifonazole cream and solution slight skin irritant effects were observed. There were no indications of changes caused specifically by the active substance, and no signs of any systemic effects were observed. Preclinical data on oral dosage forms reveal no special hazards for humans based on conventional studies of single dose toxicity and genotoxicity. Effects on the liver (enzyme induction, fatty degeneration) were observed in repeated dose toxicity studies with oral administration but only at exposures in excess of the maximum human exposure indicating little relevance to clinical use. No carcinogenicity studies were performed with bifonazole. In reproduction toxicology studies in rats and rabbits, oral doses of 30 mg/kg body weight and higher resulted in embryo foetotoxicity including lethality.

In a study of lactating rats treated with radioactively labelled bifonazole (10 mg/kg body weight intravenous), approximately 3.2% of the dose was excreted in the milk. In another study of radioactively labelled bifonazole, it was found that intravenously administered bifonazole (10mg/kg body weight) passes through the placental barrier in rats.

No impairment of male or female fertility was observed in rats at oral doses up to 40 mg/kg body weight.

Given the low absorption of the active ingredient via the skin these results have little

relevance to clinical use of Mycodeal topical solution.

6. Pharmaceutical particulars:

6.1 List of excipients:

Isopropyl Myristate BP
Ethanol BP

6.2 Incompatibilities:

None known.

6.2 Shelf life:

3 years.

6.3 Special precautions for storage:

Do not store above 30 °C. Store in a cool dry place protected from direct sunlight.

6.4 Nature and contents of the container:

Pack sizes: 15ml in HDPE bottle with a nozzle.

6.5 Special precautions for disposal:

No special requirements.

7. MARKETING AUTHORIZATION HOLDER AND MANUFACTURING SITE ADDRESS

Biodeal Laboratories Limited,
Lunga Lunga Road,
Industrial Area,
P.O. Box 32040 – 00600,
Nairobi, Kenya.

8. MARKETING AUTHORIZATION NUMBER

H2019/CTD3704/903ER

9. DATE OF FIRST REGISTRATION /RENEWAL

Date of first registration: 24th July 2019

10. DATE OF REVISION OF TEXT

January 2024