

1. Name of the medicinal product

Micort Cream

2. Qualitative and quantitative composition

Miconazole nitrate 2% w/w; Hydrocortisone acetate equivalent to hydrocortisone 1% w/w.

For excipients, see 6.1.

3. Pharmaceutical form

Cream.

White, homogeneous, odourless cream

4. Clinical particulars

4.1 Therapeutic indications

Athlete's foot and candidal intertrigo where there are co-existing symptoms of inflammation.

Organisms which are susceptible to miconazole are dermatophytes and pathogenic yeasts (e.g., *Candida* spp.). Also many Gram-positive bacteria including most strains of *Streptococcus* and *Staphylococcus*.

The properties of Micort Cream indicate it particularly for the initial stages of treatment. Once the inflammatory symptoms have disappeared, treatment can be continued with miconazole cream or miconazole powder.

4.2 Posology and method of administration

For topical administration

Apply the cream twice a day to the affected area, rubbing in gently until the cream has been absorbed by the skin.

The maximum period of treatment is 7 days.

4.3 Contraindications

Hypersensitivity to any of the ingredients. Tubercular or viral infections of the skin or those caused by Gram-negative bacteria.

Micort Cream should not be used in the following conditions:

- If the skin is broken
- On large areas of skin
- Used for longer than 7 days
- To treat cold sores and acne
- Use on the face, eyes and mucous membranes
- Children under 10 years of age, unless prescribed by a doctor
- On the ano-genital region unless prescribed by a doctor
- To treat ringworm unless prescribed by a doctor
- To treat secondary infected conditions unless prescribed by a doctor

4.4 Special warnings and precautions for use

When Micort Cream is used by patients taking oral anticoagulants, the anticoagulant effect should be carefully monitored.

Severe hypersensitivity reactions, including anaphylaxis and angioedema, have been reported during treatment with miconazole topical formulations.

If a reaction suggesting hypersensitivity or irritation should occur, the treatment should be discontinued.

Micort Cream must not come into contact with the mucosa of the eyes.

As with any topical corticosteroid, care is advised when Micort Cream is to be applied to extensive surface areas or under occlusive dressings including baby napkins; similarly application to the face should be avoided.

Long term continuous topical corticosteroid therapy should be avoided. Adrenal suppression can occur even without occlusion. Once the inflammatory conditions have disappeared treatment may be continued with miconazole cream or miconazole powder (see section 4.1).

4.5 Interaction with other medicinal products and other forms of interaction

Miconazole administered systemically is known to inhibit CYP3A4/2C9. Due to the limited systemic availability after topical application, clinically relevant interactions are rare. However, in patients on oral anticoagulants, such as warfarin, caution should be exercised and anticoagulant effect should be monitored.

Miconazole is a CYP3A4 inhibitor that can decrease the rate of metabolism of hydrocortisone. Serum concentrations of hydrocortisone may be higher with the use of Miconazole Cream compared with topical preparations containing hydrocortisone alone.

4.6 Fertility, pregnancy and lactation

Pregnancy

Clinical data on the use of Micort Cream in pregnancy are limited. Corticosteroids are known to cross the placenta and consequently can affect the foetus (See Section 5.3). Administration of corticosteroids to pregnant animals can cause abnormalities of foetal development. The relevance of these findings to humans has not been established.

As a precautionary measure, it is preferable to avoid the use of Micort cream during pregnancy.

Treatment of large surfaces and the application under occlusive dressing is not recommended.

Breastfeeding

There are no adequate and well-controlled studies on the topical administration of miconazole/hydrocortisone cream during lactation. It is not known whether concomitant topical administration of miconazole/hydrocortisone cream to the skin could result in sufficient systemic absorption to produce detectable quantities of hydrocortisone and miconazole in breast milk in humans.

A risk to the newborn child cannot be excluded.

A decision must be made whether to discontinue breastfeeding or to discontinue/abstain from miconazole/hydrocortisone therapy taking into account the benefit of breastfeeding for the child and the benefit of therapy for the woman.

4.7 Effects on ability to drive and use machines

None known.

4.8 Undesirable effects

The safety of Miconazole/Hydrocortisone Cream was evaluated in 480 patients who participated in 13 clinical trials (six double-blind and seven open-label trials) of Miconazole/Hydrocortisone Cream.

These studies examined patients from 1 month to 95 years of age with infections of the skin caused by dermatophytes or *Candida* species in which inflammatory symptoms were prominent.

All patients

No adverse drug reactions (ADRs) were reported by $\geq 1\%$ of the 480 Miconazole/Hydrocortisone Cream-treated patients (adult and paediatric patients combined).

The frequency categories use the following convention: 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 ($< 1/10,000$) and not known (cannot be estimated from the available clinical trial data).

Of the three ADR's identified from the 13 clinical trials of Miconazole/Hydrocortisone Cream, skin irritation was reported in one clinical trial that included patients aged 17 to 84 years, skin burning sensation in two clinical trials that included patients aged 13 to 84 years, and irritability in one clinical trial of infants aged 1 to 34 months.

Paediatric population

The safety of Miconazole/Hydrocortisone Cream was evaluated in 63 paediatric patients (1 month to 14 years of age) who were treated with Miconazole/Hydrocortisone Cream in 3 of the 13 clinical trials noted above. One ADR term (irritability) was reported in these 3 trials. The frequency of irritability in Miconazole/Hydrocortisone Cream-treated paediatric patients was common (3.2%).

All events of irritability occurred in one clinical trial of infants (aged 1 to 34 months) with napkin dermatitis. The frequency, type and severity of other ADRs in paediatric patients are expected to be similar to those in adults.

Table 1: Adverse Drug Reactions in Adult and Paediatric Patients Treated with Miconazole/Hydrocortisone Cream

System Organ Class	Adverse Drug Reactions	
	Frequency Category	
	Uncommon (≥1/1,000 to <1/100)	Not known
Immune System Disorders		Anaphylactic reaction, Hypersensitivity
Skin and Subcutaneous Tissue Disorders	Skin irritation, Skin burning sensation. Urticaria, Pruritis	Angioedema, Rash, Contact dermatitis, Erythema, Skin inflammation, Skin hypopigmentation, Application skin reaction
General Disorders and Administration Site Conditions	Irritability	

4.9 Overdose

Topically applied corticosteroids can be absorbed in sufficient amounts to produce systemic effects. If accidental ingestion of large quantities of the product occurs, an appropriate method of gastric emptying may be used if considered necessary.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Miconazole nitrate is active against dermatophytes and pathogenic yeasts and many Gram-positive bacteria.

The clinical efficacy of miconazole has been demonstrated against dermatophytes, *Candida* spp., *Aspergillus* spp., dimorphous fungi, *Cryptococcus neoformans*, *Malassezia* spp. and *Torulopsis glabrata*. Miconazole also has an antibacterial activity against some gram-positive bacilli and cocci.

Hydrocortisone is an anti-inflammatory steroid. Its anti-inflammatory action is due to reduction in the vascular component of the inflammatory response, suppression of migration of polymorphonuclear leukocytes, and reversal of increased capillary permeability. The vasoconstrictor action of hydrocortisone may also contribute to its anti-inflammatory activity.

5.2 Pharmacokinetic properties

Absorption

Miconazole remains in the skin after topical application for up to 4 days. Systemic absorption of miconazole is limited, with a bioavailability of less than 1% following topical application of miconazole. Plasma concentrations of miconazole and/or its metabolites were measurable 24 and 48 hours after application. Approximately 3% of the dose of hydrocortisone is absorbed after application on the skin.

Distribution

Absorbed miconazole is bound to plasma proteins (88.2%) and red blood cells (10.6%). More than 90% of hydrocortisone is bound to plasma proteins.

Metabolism and elimination

The small amount of miconazole that is absorbed is eliminated predominantly in faeces as both unchanged drug and metabolites over a four-day post-administration period. Smaller amounts of unchanged drug and metabolites also appear in urine.

The half-life of hydrocortisone is about 100 minutes. Metabolism takes place in the liver and tissues and the metabolites are excreted with the urine, mostly as glucuronides, together with a very small fraction of unchanged hydrocortisone.

5.3 Preclinical safety data

Preclinical data on the drug product (miconazole nitrate + hydrocortisone) revealed no special hazard for humans based on conventional studies of ocular irritation, dermal sensitisation, single dose oral toxicity, primary dermal irritation toxicity, and 21-day repeat dose dermal toxicity. Additional preclinical data on the individual active ingredients in this drug product reveal no special hazard for humans based on conventional studies of local irritation, single and repeated dose toxicity, genotoxicity, and for miconazole toxicity to reproduction. Miconazole has shown no teratogenic effects but is foetotoxic at high oral doses. Reproductive effects (foetotoxicity, reduced weight gain) and developmental

abnormalities, specifically craniofacial effects including cleft palate have been reported with hydrocortisone in various animal models.

6. Pharmaceutical particulars

6.1 List of excipients

Liquid paraffin
Cetomacrogol 1000
Cetostearyl alcohol
White soft paraffin
Chlorocresol
Butylated hydroxyanisole
Citric acid monohydrate
Sodium dihydrogen phosphate
Purified water

6.2 Incompatibilities

None known

6.3 Shelf life

24 months

6.4 Special precautions for storage

None

6.5 Nature and contents of container

Aluminium tubes with internal epoxyphenolic resin lacquer and polypropylene screw cap or tubes made of a multilaminar aluminium/low density polyethylene foil with a polypropylene screw cap. Each tube contains 5g, 10g or 15g cream.

6.6 Special precautions for disposal and other handling

None.

Administrative data

7. Principal and Manufacturer

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8. Registration number(s)

TBA

9. Category of Distribution

POM

10. Pharmacological Classification

Imidazole and triazole derivatives, combinations : D01AC20

11. Date of publication

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