SUMMARY OF PRODUCT CHARACTERISTICS

1. Name of the medicinal product
LUCON 1% W/W CREAM

2. Qualitative and quantitative composition
Luliconazole 1% w/w

Excipients with known effect
Each gram of cream contains 30mg cetostearyl alcohol and 10mg benzyl alcohol
For the full list of excipients, see section 6.1.

3. Pharmaceutical form
Semi-solid cream. A white colour soft mass.

4. Clinical particulars
4.1 Therapeutic indications
Luliconazole Cream 1% w/w is topically indicated to treatment of fungal infections in people with interdigital tinea pedis (athlete's foot that is between the toes), tinea cruris (jock itch or ringworm) and tinea corporal (ringworm of body) caused by the organisms *Trichophyton rubrum and Epidermophyton floccosum*, in patients 18 years of age and older.

4.2 Posology and method of administration
For topical use only. Not for ophthalmic, oral or intravaginal use.

Interdigital Tinea Pedis: LUCON Cream, 1% should be applied to the affected and immediate surrounding area(s) once a day for two weeks.

Tinea Cruris and Tinea Corporis: LUCON Cream, 1% should be applied to the affected skin and immediate surrounding area(s) once a day for one week.

4.3 Contraindications
Luliconazole is contraindicated in patients who have demonstrated hypersensitivity to Luliconazole Or any of the inactive ingredients contained in the cream, listed in section 6.1

4.4 Special warnings and precautions for use
Luliconazole is for external use only, avoid contact with eyes, nose, or mouth, other mucous membranes and do not swallow it.
Avoid ocular exposure to luliconazole. Do not apply to the cornea or conjunctiva as ophthalmic use.
Do not apply to the areas with marked erosion/fissures. Wash hands before and after application. Use exactly as stated dose by physician.

4.5 Interaction with other medicinal products and other forms of interaction

The potential of Luliconazole to inhibit cytochrome P-450 (CYP) enzymes 1A2, 2C9, 2C19, 2D6, and 3A4 was evaluated in vitro. Based on in vitro assessment, Luliconazole at therapeutic doses, particularly when applied to patients with moderate to severe tinea cruris, may inhibit the activity of CYP2C19 and CYP3A4.
However, no in vivo drug interaction trials have been conducted to evaluate the effect of Luliconazole on other drugs that are substrates of CYP2C19 and CYP3A4.
Luliconazole is not expected to inhibit CYPs 1A2, 2C9 and 2D6 based on in vitro assessment. The induction potential of luliconazole on CYP enzymes has not been evaluated.

4.6 Fertility, pregnancy and lactation

Pregnancy

Pregnancy Category C.
There are no adequate and well-controlled studies of LUCON Cream, 1% in pregnant women. LUCON Cream, 1% should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.
The animal multiples of human exposure calculations were based on daily dose body surface area (BSA) comparisons (mg/m2) for the reproductive toxicology studies. The Maximum Recommended Human Dose (MRHD) was set at 8 g 1% cream per day (1.33 mg/kg/day for a 60 kg individual which is equivalent to 49.2 mg/m2/day).
Systemic embryofetal development studies were conducted in rats and rabbits. Subcutaneous doses of 1, 5 and 25 mg/kg/day luliconazole were administered during the period of organogenesis (gestational days 7-17) to pregnant female rats. No treatment related effects on maternal toxicity or malformations were noted at 25 mg/kg/day (3 times the MRHD based on BSA comparisons). Increased incidences of skeletal variation (14th rib) were noted at 25 mg/kg/day. No treatment related effects on skeletal variation were noted at 5 mg/kg/day (0.6 times the MRHD based on BSA comparisons).
Subcutaneous doses of 4, 20 and 100 mg/kg/day luliconazole were administered during the period of organogenesis (gestational days 6-18) to pregnant female rabbits. No treatment related effects on maternal toxicity, embryofetal toxicity or malformations were noted at 100 mg/kg/day (24 times the MRHD based on BSA comparisons).
In a pre- and post-natal development study in rats, subcutaneous doses of 1, 5 and 25 mg/kg/day luliconazole were administered from the beginning of organogenesis (gestation day 7) through the end of lactation (lactation day 20). In the presence of maternal toxicity, embryofetal toxicity (increased prenatal pup mortality, reduced live litter sizes and increased postnatal pup mortality) was noted at 25 mg/kg/day. No embryofetal toxicity was noted at 5 mg/kg/day (0.6 times the MRHD based on BSA comparisons). No treatment effects on postnatal development were noted at 25 mg/kg/day (3 times the MRHD based on BSA comparisons).

Lactation:
Lactation It is not known whether Luliconazole is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Luliconazole 1% is prescribed to women who are breastfeeding.

Fertility:
No overall differences in safety or effectiveness were observed between these subjects and younger subjects, and other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot be ruled out.

4.7 Effects on ability to drive and use machines
There are no any effects shown after using this cream.

4.8 Undesirable effects
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 practice.
In three Phase 3 clinical trials, 616 subjects were exposed to Luliconazole Cream, 1%: 305 with interdigital tinea pedis and 311 subjects with tinea cruris. Subjects with interdigital tinea pedis or tinea cruris applied Luliconazole Cream, 1% or vehicle cream once daily for 14 days or 7 days, respectively, to affected and adjacent areas. During clinical trials with Luliconazole Cream, 1% the most common adverse reactions were application site reactions which occurred in less than 1% of subjects in both the Luliconazole and vehicle arms. Most adverse reactions were mild in severity.
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 https://pv.pharmacyboardkenya.org

4.9 Overdose
If accidentally ingested, the recommended treatment of overdosage consists of eliminating the drug, primarily by the administration of activated charcoal, and giving symptomatic supportive therapy, if needed.

5. Pharmacological properties
5.1 Pharmacodynamic properties
Pharmacotherapeutic group: Antifungal
ATC code: **D01AC18**
Luliconazole is an antifungal that belongs to the azole class. Although the exact mechanism of action against dermatophytes is unknown, luliconazole appears to inhibit ergosterol synthesis by inhibiting the enzyme lanosterol demethylase. Inhibition of this enzyme's activity by azoles results in decreased amounts of

ergosterol, a constituent of fungal cell membranes, and a corresponding accumulation of lanosterol.
Mechanism of Resistance: To date, a mechanism of resistance to luliconazole has not been described.
Luliconazole Cream, 1% has been shown to be active against most isolates of the following fungi, both in vitro and in clinical infections as described in the INDICATIONS AND USAGE section:
Trichophyton rubrum
Epidermophyton floccosum

5.2 Pharmacokinetic properties
Luliconazole is the R enantiomer of a chiral molecule. The potential for inter-conversion between R and S enantiomers in humans has not been assessed. Information on the pharmacokinetics of luliconazole presented below refers to both R enantiomer and S enantiomer, if any, combined.
Luliconazole is >99% protein bound in plasma.
In a pharmacokinetic trial, 12 subjects with moderate to severe tinea pedis and 8 subjects with moderate to severe tinea cruris applied a mean daily amount of approximately 3.5 grams of LULICONAZOLE Cream, 1% to the affected and surrounding areas once daily for 15 days. Plasma concentrations of luliconazole on Day 15 were measurable in all subjects and fluctuated little during the 24-hour interval. In subjects with tinea pedis, the mean ± SD of the maximum concentration (Cmax) was 0.40 ± 0.76 ng/mL after the first dose and 0.93 ± 1.23 ng/mL after the final dose. The mean time to reach Cmax (T max) was 16.9 ± 9.39 hours after the first dose and 5.8 ± 7.61 hours after the final dose. Exposure to luliconazole, as expressed by area under the concentration time curve (AUC0-24) was 6.88 ± 14.50 ng*hr/mL after the first dose and 18.74 ± 27.05 ng*hr/mL after the final dose. In subjects with tinea cruris, the mean ± SD Cmax was 4.91 ± 2.51 ng/mL after the first dose and 7.36 ± 2.66 ng/mL after the final dose. The mean Tmax was 21.0 ± 5.55 hours after the first dose and 6.5 ± 8.25 hours after the final dose. Exposure to luliconazole, as expressed by AUC 0-24 was 85.1 ± 43.69 ng*hr/mL after the first dose and 121.74 ± 53.36 ng*hr/mL after the final dose.

5.3 Preclinical safety data
Mutagenesis Carcinogenesis
Luliconazole revealed no evidence of mutagenic or clastogenic potential based on the results of two in vitro genotoxicity tests (Ames assay and Chinese hamster lung cell chromosomal aberration assay) and one in vivo genotoxicity test (mouse bone marrow micronucleus test).
Reproductive Toxicology Pregnancy & fertility
In a fertility study in rats, subcutaneous doses of 1, 5 and 25 mg/kg/day luliconazole were administered prior to and during mating and through early pregnancy. Treatment related effects on reproductive function were noted in females (decreased live embryos and decreased corpus luteum) at 5 and 25

mg/kg/day and males (decreased sperm counts) at 25 mg/kg/day. No treatment-related effects on fertility or reproductive function were noted at 1 mg/kg/day (0.1× MRHD based on BSA comparisons).

Pregnancy

There are no available data with Luliconazole Cream, 1% use in pregnant women to inform a drug associated risk for major birth defects and miscarriage. In animal reproduction studies with pregnant rats and rabbits, there were no adverse developmental effects observed with subcutaneous administration of luliconazole during organogenesis at doses up to 3 and 24 times, respectively, the maximum recommended human dose (MRHD)

The background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2 to 4% and 15 to 20%, respectively.

6. Pharmaceutical particulars

6.1 List of excipients

Cetostearyl Alcohol (GINOL 16-18 TA FLAKES)
Propylene Glycol
Mono and Di-glyceride
Light Liquid Paraffin
Stearic acid
Triglycerol Diisosterarique
Disodium Edetate
Butylated Hydroxyanisole
Butylated Hydroxytoulene
Triethanoltoluene
Methyl Hydroxybenzoate
Benzyl Alcohol
PEG-8 Bess wax
Purified water

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

24 Months.

6.4 Special precautions for storage

Store in a dry place at a temperature not exceeding 30°C.

6.5 Nature and contents of container

Each Lami tube contains 10 gm Cream & Such one Lami tube packed in a mono carton with package insert (1x10gm).

6.6 Special precautions for disposal and other handling
No special requirements.

7. Marketing authorization holder
Next Wave (India)
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Sector 29, Gurugram, 122009, Haryana, India.
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Manufacturer:
Next Wave (India)
Rampur Ghat Road, Paonta Sahib
Distt. Sirmour, H.P.-173025
Telefax: +91-01704-223215

8. Marketing authorization number(s)
CTD9434

9. Date of first authorization/renewal of the authorization
08/08/2023

10. Date of revision of the text
16/09/2023

11. Dosimetry
Not Applicable

12. Instructions for Preparation of Radiopharmaceuticals
Not Applicable