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**TRETINOIN CREAM USP 0.05% W/W**

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**1.3.1 SUMMARY OF PRODUCT CHARACTERISTICS (SMPC)****1. Name of medicinal product**

Tretinoin cream USP 0.05% w/w

**2. Composition:**

Tretinoin USP 0.05 % w/w

Cream Base Q.S.

**3. Pharmaceutical Form:**

Topical

**4. Clinical Particulars****4.1 Indication**

For the management of acne vulgaris and other keratotic conditions.

**4.2 Posology and Administration**

For cutaneous administration.

should be applied once or twice daily to the area of the skin where acne lesions occur.

areas to be treated should be cleansed thoroughly with water and a mild, non-medicated soap. The treated area should be washed no more than twice a day. After washing, the skin should be dried gently and completely without rubbing it. Areas of the skin being treated should be allowed to dry for at least 20 to 30 minutes before application.

Only apply sufficient to cover the affected areas lightly, using a gauze swab, cotton wool or the tips of clean fingers.

Avoid over-saturation to the extent that excess medication could get into the eyes, angles of the nose or other areas where treatment is not intended.

Initial applications may cause transitory stinging and a feeling of warmth. The correct frequency of administration should produce a slight erythema similar to that of mild sunburn.

**4.3 Contraindication**

Hypersensitivity to the active substance(s) or to any of the excipients.

**4.4 Special Warning & precautions for use**

1. The frequency of application should be closely monitored by careful observation of the clinical therapeutic response and skin tolerance.

2. The presence of cutaneous irritative signs (e.g. erythema, peeling, pruritus, sunburn, etc) should prohibit initiation or recommencement of treatment with Retin-A until the symptoms resolve.

3. Following prolonged use of peeling agents it is advisable to 'rest' a patient's skin until the effects of the peeling agent subside before the use of Retin-A is begun. When Retin-A and peeling agents are alternated, contact dermatitis may result and frequency of application may have to be reduced.

4. Avoid contact with eyes, eyelids, nostrils, mouth and mucous membranes. If contact in these areas occurs, careful washing with water is recommended.

5. In certain sensitive individuals, topical use may induce severe local erythema, swelling, pruritus, warmth, burning or stinging, blistering, crusting and/or peeling at the site of

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application. If the degree of local irritation warrants, the patient should be directed to apply the medication less frequently or discontinue its use temporarily. If a patient experiences severe or persistent irritation, the patient should be advised to discontinue application of Retin-A completely and if necessary, consult a physician.

Weather extremes, such as wind or cold and low humidity, may also be irritating to skin being treated with Retin-A and may increase its dryness.

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

No interaction studies found.

### **4.6 Fertility, Pregnancy and lactation**

It should not be used during pregnancy unless clearly necessary

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

It is unlikely to have an effect on one's ability to drive or operate machinery

### **4.8 Undesirable effects**

Local symptoms such as pruritus, skin exfoliation, application site pain, application site irritation, pigmentation disorder, skin burning sensation, erythema, scab, etc. may occur at the site of application.

These harmless symptoms must be distinguished from hypersensitivity reactions including rash, which are reported in sporadic cases and require discontinuation of therapy.

In case of accidental contact with the eyes terbinafine may be irritating to the eyes.

In rare cases the underlying fungal infection may be aggravated.

### **4.9 Overdose**

Excessive application does not improve the results of treatment and may induce marked irritation, e.g. erythema, peeling, pruritus, etc. Oral ingestion of Retin-A may lead to the same effects associated with excessive oral intake of vitamin A (e.g. pruritus, dry skin, arthralgias, anorexia, vomiting). In the event of accidental ingestion, if the ingestion is recent, an appropriate method of gastric emptying should be used as soon as possible.

## **5. Pharmacological properties**

### **5.1 Pharmacodynamic properties**

Tretinoin ( $\beta$ -All trans retinoic acid, vitamin A acid) produces profound metabolic changes in keratinizing epithelia.

Tretinoin increases the proliferative activity of epidermal cells in in vivo and in vitro studies, and cellular differentiation (keratinization and cornification) is also altered.

### **5.2 Pharmacokinetic properties**

#### **Absorption**

Tretinoin is an endogenous metabolite of Vitamin A metabolism in man. Upon topical application, tretinoin is minimally absorbed, penetrating both the epidermis and dermis.

Percutaneous absorption of tretinoin, as determined by the cumulative excretion of radiolabeled drug into urine and feces, was assessed in healthy men and women after single and/or repeated daily applications of a 0.05%, 0.1% or 0.5% tretinoin cream formulation or a 0.01% tretinoin gel formulation, at doses of 100, 150 or 500 mg. The mean percutaneous absorption ranged from 1.0 to 4.3%.

Endogenous plasma concentrations of tretinoin and its metabolites, 13-cis-retinoic acid, all-trans-4-oxo-retinoic acid and 13-cis-4-oxo-retinoic acid were essentially unaltered after either single or multiple daily applications relative to baseline levels.

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**Distribution**

Approximately 80% of tretinoin applied remains on the skin surface, whereas its penetration through the stratum corneum and the hair follicle is vehicle-dependent. After the initial diffusion into the stratum corneum that occurs within a few minutes, further diffusion into epidermis and dermis proceeds more slowly.

**Metabolism**

Topically-applied tretinoin is metabolized by CYP2S1 and CYP26. Metabolites are 13-cis-retinoic acid, all-trans-4-oxo-retinoic acid and 13-cis-4-oxo-retinoic acid.

**Elimination**

After application of radiolabelled tretinoin emollient cream or cream, urinary excretion occurred mainly in the first 48 hours, whereas radioactivity was eliminated in the faeces throughout the 7 days after dose application. On average 1 –1.5% of the radioactivity was recovered in urine and less than 1 % was recovered in feces.

**6. Shelf Life**

36 months

**7. Special precaution for Storage**

Do not store above 30°C.

**8. Nature and contents of container**

30 gm tube packed in carton along with insert.

**9. Marketing Holder**

YOGI CARE PHARMACEUTICAL PRIVATE LIMITED

OFFICE-1113,1114, BINORI B SQUARE - 3, SINDHU BHAVAN

ROAD, NR. TRADE BULLS, Bodakdev, Ahmedabad, Ahmedabad,

Gujarat, 380054

**10. Manufacturer**

SPENSUS PHARMACEUTICALS PRIVATE LIMITED

Unit No. 1, survey No. 284, Ganeshpura, Gujarat - 382705