Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Dovonex 50 micrograms/ml Scalp Solution.

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Calcipotriol 50 micrograms/ml (as the hydrate).

Excipient(s) with known effect:
Contains propylene glycol.

For the full list of excipients, see 6.1

3 PHARMACEUTICAL FORM

Scalp solution.
A clear, colourless, slightly viscous scalp solution with an odour of menthol.

4 CLINICAL PARTICULARS

4.1 Therapeutic Indications

Dovonex Scalp Solution is indicated for the topical treatment of scalp psoriasis.

4.2 Posology and method of administration

Adults: Dovonex Scalp Solution should be applied twice daily (morning and evening) to the affected areas. Maximum weekly dose should not exceed 60 ml.
When used together with Dovonex Cream or Ointment, the total dose of calcipotriol should not exceed 5 mg in any week.

Paediatric Population:
No data are available.

4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

Due to the content of calcipotriol, Dovonex is contraindicated in patients with known disorders of calcium metabolism (see section 4.4).

4.4 Special warnings and precautions for use

Effects on calcium metabolism
Due to the content of calcipotriol, hypercalcaemia may occur if the maximum weekly dose is exceeded. Serum calcium is normalised when treatment is discontinued. The risk of hypercalcaemia is minimal when the recommendations relevant to calcipotriol are followed. The maximum weekly dose in adults is 100 g of cream or ointment (equivalent to 5 mg of calcipotriol) or 60 ml of scalp solution (equivalent to 3 mg of calcipotriol). When cream, ointment or cutaneous solution are applied together, the total dose of calcipotriol should not exceed 5 mg per week.

Local adverse reactions:
Dovonex Scalp Solution should not be applied to the face. The patients must be instructed in correct use of the product to avoid accidental transfer to the face and eyes (see section 4.8). Hands must be washed after each application to avoid accidental transfer to these areas.

Due to lack of data, Dovonex should be avoided in patients with severe liver and kidney disease.

UV exposure:
During Dovonex treatment physicians are recommended to advise patients to limit or avoid excessive exposure to either natural or artificial sunlight. Dovonex should be used with UV radiation only if the physician and patient consider that the potential benefits outweigh the potential risks (See section 5.3).

Unevaluated use:
Due to lack of data, Dovonex should be avoided in guttate, erythrodermic, exfoliative and pustular psoriasis.

Adverse reactions to excipients:
Dovonex Scalp Solution contains propylene glycol as an excipient which may cause skin irritation.

4.5 Interaction with other medicinal products and other forms of interaction

No interaction studies have been performed with Dovonex.

4.6 Fertility, pregnancy and lactation

Pregnancy:
Safety for use of calcipotriol during human pregnancy has not been established. When calcipotriol was administered orally in animals, reproductive toxicity has been shown. Calcipotriol should not be used during pregnancy unless clearly necessary.

Breast-feeding:
It is unknown whether calcipotriol is excreted in human milk. Caution should be exercised when prescribing Dovonex to women who breast-feed.

Fertility:
Studies in rats with oral doses of calcipotriol demonstrated no impairment of male and female fertility.

4.7 Effects on ability to drive and use machines

Dovonex has no or negligible influence on the ability to drive and to use machines.

4.8 Undesirable effects

The estimation of the frequency of adverse reactions is based on a pooled analysis of data from clinical studies and spontaneous reporting.
The most frequently reported adverse reactions during treatment are skin irritation, application site pain and erythema.

Systemic reactions (hypercalcaemia and hypercalciuria) have been reported. The risk of developing such reactions increases if the recommended total dose is exceeded (see section 4.4).

Adverse reactions are listed by MedDRA SOC and the individual adverse reactions are listed starting with the most frequently reported. Within each frequency grouping, adverse reactions are presented in the order of decreasing seriousness.

Very common (≥1/10)
Common (≥1/100 to < 1/10)
Uncommon (≥1/1,000 to <1/100)
Rare (≥1/10,000 to <1/1,000)
Very rare (<1/10,000)

Immune system disorders	
Uncommon (≥1/1,000 to <1/100)	Hypersensitivity
Metabolism and nutrition disorders	
Uncommon (≥1/1,000 to <1/100)	Hypercalcaemia
Eye disorders	
Uncommon (≥1/1,000 to <1/100)	Eye and eyelid irritation
Rare (≥1/10,000 to <1/1,000)	Periorbital oedema
Skin and subcutaneous tissue disorders	
Very common (≥1/10)	Skin irritation
Common (≥1/100 to < 1/10)	Psoriasis aggravated Dermatitis Erythema Rash* Skin exfoliation Skin burning sensation Dry skin Pruritus
Uncommon (≥1/1,000 to <1/100)	Photosensitivity reaction Skin oedema Urticaria Seborrhoeic dermatitis
Unknown frequency	Periorbital or face oedema
Renal and urinary disorders	
Uncommon (≥1/1,000 to <1/100)	Hypercalciuria
General disorders and administration site conditions	
Common (≥1/100 to <1/10)	Application site pain
Uncommon (≥1/1,000 to <1/100)	Application site pigmentation changes
Rare (≥1/10,000 and <1/1,000)	Face oedema

*Various types of rash reactions such as rash erythematous, rash macular, rash papular and rash macular-papular have been reported.

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 HPRA Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: www.hpra.ie; e-mail: medsafety@hpra.ie.

4.9 Overdose

Use above the recommended dose may cause elevated serum calcium which subsides when treatment is discontinued. The symptoms of hypercalcemia include polyuria, constipation, muscle weakness, confusion and coma.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Antipsoriatics for topical use

ATC code: D05AX02

Calcipotriol is a vitamin D derivative. *In vitro* data suggest that calcipotriol induces differentiation and suppresses proliferation of keratinocytes. This effect is the proposed basis for its effect in psoriasis.

5.2 Pharmacokinetic properties

Calcipotriol is only slightly absorbed from the skin.

5.3 Preclinical safety data

The effect on calcium metabolism is approximately 100 times less than that of the hormonally active form of vitamin D_3.

A dermal carcinogenicity study in mice showed no indications of increased carcinogenic risks. Calcipotriol solution was applied topically for up to 24 months at doses of 3, 10 and 30 µg/kg/day (corresponding to 9, 30 and 90 µg/m^2/day). The high-dose was considered to be the Maximum Tolerated Dose for dermal treatment of mice with calcipotriol. Survival was decreased at 10 and 30 µg/kg/day, particularly in the males. The reduced survival was associated with an increased incidence of obstructive uropathy, most probably caused by treatment-related changes in the urinary composition. This is an expected effect of treatment with high doses of calcipotriol or other vitamin D analogues. There were no dermal effects and no dermal or systemic carcinogenicity.

Calcipotriol has shown maternal and fetal toxicity in rats and rabbits when given by the oral route at doses of 54 µg/kg/day and 12 µg/kg/day, respectively. The fetal abnormalities observed with concomitant maternal toxicity included signs indicative of skeletal immaturity (incomplete ossification of the pubic bones and forelimb phalanges, and enlarged fontanelles) and an increased incidence of supernumerary ribs.

In a study where albino hairless mice were repeatedly exposed to both ultraviolet (UV) radiation and topically applied calcipotriol for 40 weeks at the same dose levels as in the dermal carcinogenicity study, a reduction in the time required for UV radiation to induce the formation of skin tumours was observed (statistically significant in males only), suggesting that calcipotriol may enhance the effect of UV radiation to induce skin tumours. The clinical relevance of these findings is unknown.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Hyprolose
Isopropyl alcohol
Levomenthol
Sodium citrate

Propylene glycol
Purified water

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years.

6.4 Special precautions for storage

Store below 25°C.

6.5 Nature and contents of container

White HDPE bottles fitted with an LDPE nozzle and blue HDPE screw cap.
Pack size: 30 ml and 60 ml.
Not all pack sizes may be marketed.

6.6 Special precautions for disposal

The alcohol base is flammable.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

LEO Laboratories
Cashel Road,
Dublin 12.

8 MARKETING AUTHORISATION NUMBER

PA0046/061/003

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 8th September 1994

Date of last renewal: 25th February 2006

10 DATE OF REVISION OF THE TEXT

June 2015