Calcipotriene (kal-si-poe-tri-reen)

**Dovez, Sefinax**

**Classification**
Therapeutic: antipsoriatics
Pharmacologic: synthetic vitamin D analogues

**Pregnancy Category C**

**Indications**
Management of plaque psoriasis.

**Action**
Modulates skin cell development and production by acting as a synthetic form of vitamin D. Therapeutic Effects: Decreased extent and severity of psoriatic lesions.

**Pharmacodynamics**
Absorption: 8% (cream and ointment) and 1% (scalp solution) is systemically absorbed from psoriatic lesions.

**Distribution:** Unknown.

**Metabolism and Excretion:** Metabolized and recycled by the liver, excreted in bile.

**Half-Life:** Unknown.

**TIME/ACTION PROFILE (improvement in psoriatic lesions)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topical</td>
<td>2–8 wk</td>
<td>unknown</td>
<td>unknown</td>
</tr>
</tbody>
</table>

**Contraindications/Precautions**
Contraindicated in:
- Hypersensitivity to calcipotriene or other components in the base (petrolatum and mineral oil in cream (U.S.), propylene glycol in scalp solution (U.S.), paraffin in Canadian product); Hypercalcemia; Vitamin D toxicity.

Use Cautiously in:
- Geri: Decreased incidence of local reactions;
- OB, Lactation, Pedi: Safety not established.

**Adverse Reactions/Side Effects**

<table>
<thead>
<tr>
<th>System</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derm</td>
<td>Burning, itching, skin irritation, dry skin, erythema, peeling, rash, worsening or spreading of psoriatic lesions.</td>
</tr>
<tr>
<td>F and E</td>
<td>Hypercalcemia</td>
</tr>
</tbody>
</table>

**Interactions**

**Drug-Drug:** None significant at recommended doses.

**Route/Dosage**

**Topical (Adults):** Apply twice daily.

**NURSING IMPLICATIONS**

**Assessment**
- Assess skin before and periodically during therapy.
- **Full-Field Considerations:** Monitor serum calcium concentrations before and periodically during therapy. May cause transient, rapidly reversible hypercalcemia. If hypercalcemia occurs, discontinue calcipotriene and monitor calcium levels weekly until normal serum calcium levels are restored.
- **Pregnancy and Overdose:** Excessive use may cause hypercalcemia because sufficient amounts may be absorbed from topical application.

**Potential Nursing Diagnoses**
- Disturbed body image (Indications)
-Deficient knowledge, related to medication regimen (Patient/Family Teaching)

**Implementation**

**Topical:**
- Apply a thin layer to affected skin twice daily and rub in gently and completely. Apply sparingly in skin folds to prevent irritation from natural occlusion. Do not apply occlusive dressings.
- If calcipotriene is used in combination with ultraviolet B light (UVB) phototherapy, apply calcipotriene after phototherapy.
- For solution, prepare scalp before applying by combing and removing scaly debris and parting hair for easy access to scalp lesions. Apply only to visible scalp lesions and rub in gently and completely. Do not apply to acute psoriatic eruptions.

**Patient/Family Teaching**
- Instruct patient to use medication as directed. If a dose is missed, apply as soon as possible, unless almost time for next dose. Calcipotriene is for external use only; contact with face or eyes should be avoided. Wash hands after application.
- Allow patient not to use calcipotriene for any disorder other than that for which it was prescribed.
- Inform patient to report any signs of local adverse reactions, persistent irritation, or facial rash to health care professional. Calcipotriene may cause irritation of lesions and surrounding skin. Discontinuation of the drug may be required.

**Interactions**

**Drug-Drug:** None significant at recommended doses.

**NURSING IMPLICATIONS**

- Assess skin before and periodically during therapy.
- **Full-Field Considerations:** Monitor serum calcium concentrations before and periodically during therapy. May cause transient, rapidly reversible hypercalcemia. If hypercalcemia occurs, discontinue calcipotriene and monitor calcium levels weekly until normal serum calcium levels are restored.
- **Pregnancy and Overdose:** Excessive use may cause hypercalcemia because sufficient amounts may be absorbed from topical application.

**Potential Nursing Diagnoses**
- Disturbed body image (Indications)
- Deficient knowledge, related to medication regimen (Patient/Family Teaching)

**Implementation**

**Topical:**
- Apply a thin layer to affected skin twice daily and rub in gently and completely. Apply sparingly in skin folds to prevent irritation from natural occlusion. Do not apply occlusive dressings.
- If calcipotriene is used in combination with ultraviolet B light (UVB) phototherapy, apply calcipotriene after phototherapy.
- For solution, prepare scalp before applying by combing and removing scaly debris and parting hair for easy access to scalp lesions. Apply only to visible scalp lesions and rub in gently and completely. Do not apply to acute psoriatic eruptions.

**Patient/Family Teaching**
- Instruct patient to use medication as directed. If a dose is missed, apply as soon as possible, unless almost time for next dose. Calcipotriene is for external use only; contact with face or eyes should be avoided. Wash hands after application.
- Allow patient not to use calcipotriene for any disorder other than that for which it was prescribed.
- Inform patient to report any signs of local adverse reactions, persistent irritation, or facial rash to health care professional. Calcipotriene may cause irritation of lesions and surrounding skin. Discontinuation of the drug may be required.

**Interactions**

**Drug-Drug:** None significant at recommended doses.

**NURSING IMPLICATIONS**

- Assess skin before and periodically during therapy.
- **Full-Field Considerations:** Monitor serum calcium concentrations before and periodically during therapy. May cause transient, rapidly reversible hypercalcemia. If hypercalcemia occurs, discontinue calcipotriene and monitor calcium levels weekly until normal serum calcium levels are restored.
- **Pregnancy and Overdose:** Excessive use may cause hypercalcemia because sufficient amounts may be absorbed from topical application.

**Potential Nursing Diagnoses**
- Disturbed body image (Indications)
- Deficient knowledge, related to medication regimen (Patient/Family Teaching)

**Implementation**

**Topical:**
- Apply a thin layer to affected skin twice daily and rub in gently and completely. Apply sparingly in skin folds to prevent irritation from natural occlusion. Do not apply occlusive dressings.
- If calcipotriene is used in combination with ultraviolet B light (UVB) phototherapy, apply calcipotriene after phototherapy.
- For solution, prepare scalp before applying by combing and removing scaly debris and parting hair for easy access to scalp lesions. Apply only to visible scalp lesions and rub in gently and completely. Do not apply to acute psoriatic eruptions.

**Patient/Family Teaching**
- Instruct patient to use medication as directed. If a dose is missed, apply as soon as possible, unless almost time for next dose. Calcipotriene is for external use only; contact with face or eyes should be avoided. Wash hands after application.
- Allow patient not to use calcipotriene for any disorder other than that for which it was prescribed.
- Inform patient to report any signs of local adverse reactions, persistent irritation, or facial rash to health care professional. Calcipotriene may cause irritation of lesions and surrounding skin. Discontinuation of the drug may be required.

**Interactions**

**Drug-Drug:** None significant at recommended doses.

**NURSING IMPLICATIONS**

- Assess skin before and periodically during therapy.
- **Full-Field Considerations:** Monitor serum calcium concentrations before and periodically during therapy. May cause transient, rapidly reversible hypercalcemia. If hypercalcemia occurs, discontinue calcipotriene and monitor calcium levels weekly until normal serum calcium levels are restored.
- **Pregnancy and Overdose:** Excessive use may cause hypercalcemia because sufficient amounts may be absorbed from topical application.

**Potential Nursing Diagnoses**
- Disturbed body image (Indications)
- Deficient knowledge, related to medication regimen (Patient/Family Teaching)

**Implementation**

**Topical:**
- Apply a thin layer to affected skin twice daily and rub in gently and completely. Apply sparingly in skin folds to prevent irritation from natural occlusion. Do not apply occlusive dressings.
- If calcipotriene is used in combination with ultraviolet B light (UVB) phototherapy, apply calcipotriene after phototherapy.
- For solution, prepare scalp before applying by combing and removing scaly debris and parting hair for easy access to scalp lesions. Apply only to visible scalp lesions and rub in gently and completely. Do not apply to acute psoriatic eruptions.

**Patient/Family Teaching**
- Instruct patient to use medication as directed. If a dose is missed, apply as soon as possible, unless almost time for next dose. Calcipotriene is for external use only; contact with face or eyes should be avoided. Wash hands after application.
- Allow patient not to use calcipotriene for any disorder other than that for which it was prescribed.
- Inform patient to report any signs of local adverse reactions, persistent irritation, or facial rash to health care professional. Calcipotriene may cause irritation of lesions and surrounding skin. Discontinuation of the drug may be required.

**Interactions**

**Drug-Drug:** None significant at recommended doses.

**NURSING IMPLICATIONS**

- Assess skin before and periodically during therapy.
- **Full-Field Considerations:** Monitor serum calcium concentrations before and periodically during therapy. May cause transient, rapidly reversible hypercalcemia. If hypercalcemia occurs, discontinue calcipotriene and monitor calcium levels weekly until normal serum calcium levels are restored.
- **Pregnancy and Overdose:** Excessive use may cause hypercalcemia because sufficient amounts may be absorbed from topical application.

**Potential Nursing Diagnoses**
- Disturbed body image (Indications)
- Deficient knowledge, related to medication regimen (Patient/Family Teaching)

**Implementation**

**Topical:**
- Apply a thin layer to affected skin twice daily and rub in gently and completely. Apply sparingly in skin folds to prevent irritation from natural occlusion. Do not apply occlusive dressings.
- If calcipotriene is used in combination with ultraviolet B light (UVB) phototherapy, apply calcipotriene after phototherapy.
- For solution, prepare scalp before applying by combing and removing scaly debris and parting hair for easy access to scalp lesions. Apply only to visible scalp lesions and rub in gently and completely. Do not apply to acute psoriatic eruptions.

**Patient/Family Teaching**
- Instruct patient to use medication as directed. If a dose is missed, apply as soon as possible, unless almost time for next dose. Calcipotriene is for external use only; contact with face or eyes should be avoided. Wash hands after application.
- Allow patient not to use calcipotriene for any disorder other than that for which it was prescribed.
- Inform patient to report any signs of local adverse reactions, persistent irritation, or facial rash to health care professional. Calcipotriene may cause irritation of lesions and surrounding skin. Discontinuation of the drug may be required.
Advise patient to avoid excessive exposure of natural or artificial light to treated area.

Emphasize the importance of regular lab tests to monitor calcium concentrations.

Instruct patient to consult health care professional if skin problem has not improved within 2–8 wk or if skin condition worsens.

Evaluation/Desired Outcomes

- Improvement or resolution of skin lesions in psoriasis. Improvement usually begins after 2 wk of therapy, with marked improvement in 8 wk.

Why was this drug prescribed for your patient?