

# Summary of Product Characteristics

## 1 NAME OF THE MEDICINAL PRODUCT

Dalacin T Topical 10 mg/ml Cutaneous Solution

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml of solution contains clindamycin phosphate equivalent to 10 mg of clindamycin.

### Excipients with known effect:

Propylene glycol 50 mg/ml

For the full list of excipients, see section 6.1.

## 3 PHARMACEUTICAL FORM

Cutaneous solution.

A clear, colourless solution with characteristic isopropyl alcohol odour.

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic Indications

Treatment of acne vulgaris.

### 4.2 Posology and method of administration

#### Posology

Apply a thin film of Dalacin T Topical Solution twice daily to the affected area after thorough cleansing.

#### Method of administration

Topical.

### 4.3 Contraindications

Topical clindamycin is contraindicated in individuals with a history of hypersensitivity to clindamycin, lincomycin or to any of the excipients listed in section 6.1. This is also contraindicated in patients with a history of inflammatory bowel disease or a history of antibiotic-associated colitis.

Dalacin T should not be used in patients with systemic infections for which antimicrobials are being used.

### 4.4 Special warnings and precautions for use

If there is no response within a few weeks, alternative therapy should be considered, but a response may not be seen for 4-6 weeks.

#### *Clostridium difficile* associated diarrhoea (CDAD)

Oral and parenteral clindamycin, as well as most other antibiotics, have been associated with severe diarrhoea and pseudomembranous colitis (see section 4.8). Use of the topical formulation of clindamycin results in absorption of the antibiotic from the skin surface. Diarrhoea and colitis have been reported infrequently with topical clindamycin. Therefore, the physician should, nonetheless, be alert to the possible development of antibiotic-associated diarrhoea or colitis. If significant or prolonged diarrhoea occurs, the drug product should be discontinued immediately, and appropriate diagnostic procedures and treatment provided as necessary.

Studies indicate a toxin(s) produced by *Clostridium difficile* is the major cause of antibiotic-associated colitis. Colitis is usually characterised by persistent, severe diarrhoea and abdominal cramps. Endoscopic examination may reveal pseudomembranous colitis. Stool culture for *C. difficile* and/or assay for *C. difficile* toxin may be helpful to diagnosis.

Diarrhoea, colitis, and pseudomembranous colitis have been observed to begin up to several weeks following cessation of oral and parental therapy with clindamycin.

Vancomycin is effective in the treatment of antibiotic-associated colitis produced by *C. difficile*. Additional supportive medical care may be necessary.

Mild cases of colitis may respond to discontinuation of clindamycin alone.

Cholestyramine and colestipol resins have been shown to bind *C. difficile* toxin *in vitro*, and cholestyramine has been effective in the treatment of some mild cases of antibiotic-associated colitis.

#### Sensitive surfaces

Dalacin T Topical Solution contains an alcohol base which can cause burning and irritation of the eyes, mucous membranes and abraded skin. In the event of accidental contact with sensitive surfaces (eye, abraded skin, mucous membranes), bathe with copious amounts of cool tap water.

#### Non-susceptible organisms

Prolonged use of Dalacin T Topical Solution may result in super-infection due to micro-organisms resistant to clindamycin.

#### Application around the mouth

The solution has an unpleasant taste and caution should be exercised when applying medication around the mouth.

#### Excipients

This medicine contains propylene glycol which may cause skin irritation.

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

Systemic clindamycin has been shown to have neuromuscular blocking properties that may enhance the action of other neuromuscular blocking agents. Therefore, it should be used with caution in patients receiving such agents.

Concomitant use with other topical treatment should only be carried out with caution in view of possible local cumulative effects.

### **4.6 Fertility, pregnancy and lactation**

#### Pregnancy

Oral and subcutaneous reproductive toxicity studies in rats and rabbits revealed no evidence of impaired fertility or harm to the foetus due to clindamycin, except at doses that caused maternal toxicity. Animal reproduction studies are not always predictive of human response.

In clinical trials with pregnant women, the systemic administration of clindamycin during the second and third trimesters has not been associated with an increased frequency of congenital abnormalities.

Clindamycin should be used during the first trimester of pregnancy only if clearly needed. There are no adequate and well-controlled studies in pregnant women during the first trimester of pregnancy.

There are no adequate studies of topical clindamycin use during pregnancy.

#### Breast-feeding

Clindamycin is excreted in human breast milk after intravenous and oral dosing and effects (e.g. diarrhea, blood in stool and rash) have been shown in breastfed newborns/infants of treated women. Concentrations of clindamycin in breast milk after daily dosing with Dalacin T are unknown but are expected to be lower than those reported after systemic administration. A decision must be made whether to discontinue breast-feeding or to discontinue/abstain from Dalacin T taking into account the benefit of breast-feeding for the child and the benefit of therapy for the woman.

Breast-feeding can be continued during use with topical clindamycin, however it should not be applied on or near the breasts.

#### Fertility

Fertility studies in rats treated orally with clindamycin revealed no effects on fertility or mating ability.

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

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

#### 4.8 Undesirable effects

The table below lists the adverse reactions identified through clinical trial experience and post-marketing surveillance by system organ class and frequency. Adverse reactions identified from post-marketing experience are included in italics. The frequency grouping is defined using the following convention: Very common (affects more than 1 user in 10); Common (affects 1 to 10 users in 100); Uncommon (affects 1 to 10 users in 1,000); Rare (affects 1 to 10 users in 10,000); Very Rare (affects less than 1 user in 10,000) and Not known (frequency cannot be estimated from the available data). Within each frequency grouping, undesirable effects are presented in order of decreasing seriousness.

	<b>Very Common</b> (≥1/10)	<b>Common</b> (≥1/100 to <1/10)	<b>Uncommon</b> ≥ 1/1 000 to <1/100	<b>Frequency Not Known</b>
<b>Infections and Infestations</b>				<i>Gram-negative folliculitis</i>
<b>Eye Disorders</b>				<i>Eye pain</i>
<b>Gastrointestinal Disorders</b>			Gastrointestinal disorder	<i>Abdominal pain, Pseudomembranous colitis (see section 4.4)</i>
<b>Skin and Subcutaneous Tissue Disorders</b>	Dry skin Skin irritation Urticaria	Seborrhoea		<i>Dermatitis contact</i>

#### 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](http://www.hpra.ie); E-mail: [medsafety@hpra.ie](mailto:medsafety@hpra.ie)

#### 4.9 Overdose

Topically applied clindamycin can be absorbed in sufficient amounts to produce systemic effects.

In the event of overdosage, general symptomatic and supportive measures are indicated as required.

## 5 PHARMACOLOGICAL PROPERTIES

### 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Anti - inf ectives for treatment of acne, ATC Code: DA10AF0 1.

#### **Mechanism of action**

Clindamycin is a lincosamide antibiotic that inhibits bacterial protein synthesis. It binds to the 50S ribosomal subunit and affects both ribosome assembly and the translation process. Although clindamycin phosphate is inactive in vitro, rapid in vivo hydrolysis converts this compound to the antibacterially active clindamycin.

Clindamycin has been shown to have in vitro activity against isolates of the following organisms;

Anaerobic gram positive non spore forming bacilli, including:

*Propionibacterium acnes* .

### Pharmacodynamic effects

Efficacy is related to the time period that the agent level is above the minimum inhibitory concentration (MIC) of the pathogen (%T/MIC).

### Resistance

Resistance to clindamycin in *Propionibacterium acnes* can be caused by mutations at the rRNA antibiotic binding site or by methylation of specific nucleotides in the 23S RNA of the 50S ribosomal subunit. These alterations can determine cross resistance to macrolides and streptogramins B (MLSB phenotype). Macrolide- resistant isolates should be tested for inducible resistance to clindamycin using the D zone test.

The prevalence of acquired resistance may vary geographically and with time for selected species and local information on resistance is desirable, particularly when treating severe infections . As necessary, expert advice should be sought when the local prevalence of resistance is such that the utility of the agent in at least some types of infections is questionable. Particularly in severe infections or therapy failure microbiological diagnosis with verification of the pathogen and its susceptibility to clindamycin is recommended.

Resistance is usually defined by susceptibility interpretive criteria (breakpoints) established by EUCAST for systemically administered antibiotics. These breakpoints may be less relevant for topically administered clindamycin. Although clindamycin is not specifically cited, EUCAST has suggested that, for topically applied antimicrobials, resistance might be better defined by epidemiological cut- off values (ECOFFS) rather than the clinical breakpoints determined for systemic administration. However, MIC distributions and ECOFFS have not been published by EUCAST for *P. acnes* . Based on correlations between clinical results in acne patients and the clindamycin MICs for their *P. acnes* isolates, values as high as 256 mg/L are considered susceptible for topically administered clindamycin.

A Belgian surveillance study (2011- 2012) of anaerobic bacteria included 22 *P. acnes* isolates; 95.5% were susceptible to clindamycin. An earlier European surveillance study, which included 304 isolates of *P. acnes*, had reported a resistance rate of 15% to clindamycin. However, this study used a breakpoint of 0.12 mg/L; using the current breakpoint of 4 mg/L, there were no resistant isolates.

### Breakpoints

EUCAS T breakpoints for Gram - positive anaerobes are listed below. these breakpoints are based on use in systemic infections.

EUCAS T Breakpoints for Systemically Administered Clindamycin

Pathogen	Susceptible	Resistant
Gram- positive anaerobes (excluding <i>Clostridium difficile</i> )	≤4 mg/L	>4 mg/L

In a U.S. surveillance study, clindamycin MICs were ≤4 mg/L for 97% of *P. acnes* isolate tested.

In some bacterial species, cross resistance has been demonstrated in vitro among lincosamides, macrolides, and streptogramins B .

## 5.2 Pharmacokinetic properties

Following multiple topical applications of clindamycin phosphate at a concentration equivalent to 10 mg clindamycin per mL in an isopropyl alcohol and water solution, very low levels of clindamycin are present in the serum (0–3 ng/mL) and less than 0.2% of the dose is recovered in urine as clindamycin.

Clindamycin activity has been demonstrated in comedones from acne patients. The mean concentration of antibiotic activity in extracted comedones after application of clindamycin topical solution for 4 weeks was 597 mcg/g of comedonal material

(range 0–1490). Clindamycin *in vitro* inhibits all *Propionibacterium acnes* cultures tested (MICs 0.4 mcg/mL). Free fatty acids on the skin surface have been decreased from approximately 14% to 2% following application of clindamycin.

#### Geriatric Use

Clinical studies for topical clindamycin did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects.

### 5.3 Preclinical safety data

#### Carcinogenicity

Long term studies in animals have not been performed with clindamycin to evaluate carcinogenic potential.

#### Mutagenicity

Genotoxicity tests performed included a rat micronucleus test and an Ames Salmonella reversion test. Both tests were negative.

#### Reproductive toxicity

Fertility studies in rats treated orally with up to 300 mg/kg/day (approximately 1.1 times the highest recommended adult human dose based on mg/m<sup>2</sup>) revealed no effects on fertility or mating ability.

In oral and subcutaneous reproductive toxicity studies in rats and rabbits, no impaired fertility or developmental toxicity was observed except at doses that produced maternal toxicity.

## 6 PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Isopropyl alcohol  
Propylene glycol  
Purified water  
Concentrated hydrochloric acid (for pH-adjustment)  
Sodium hydroxide (for pH-adjustment)

### 6.2 Incompatibilities

Not applicable.

### 6.3 Shelf life

2 years.

### 6.4 Special precautions for storage

Do not store above 25°C.

### 6.5 Nature and contents of container

**Bottle** - White high-density polyethylene bottle containing 30 ml or 50 ml

**Cap** - Polypropylene, linerless screw caps

or

Polypropylene screw caps lined with laminated films consisting of polyethylene, polyvinylidene chloride (PVdc) and polyethylene

**Applicator** - Low-density polyethylene applicator made by Dab-O-Matic

Not all pack sizes may be marketed.

### 6.6 Special precautions for disposal and other handling

Shake immediately before use.

No special requirements for disposal.

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

**7 MARKETING AUTHORISATION HOLDER**

Pfizer Healthcare Ireland  
9 Riverwalk  
National Digital Park  
Citywest Business Campus  
Dublin 24  
Ireland

**8 MARKETING AUTHORISATION NUMBER**

PA0822/121/002

**9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 12 April 1989

Date of last renewal: 22 May 2006

**10 DATE OF REVISION OF THE TEXT**

November 2019