clindamycin phosphate topical solution, USP, topical gel, and topical lotion

PHARMACIA

For External Use

DESCRIPTION

CLEOCIN T Topical Solution and CLEOCIN T CLEOCIN T Topical Solution and CLEOCIN T Topical Lotion contain clindamycin phosphate, USP, at a concentration equivalent to 10 mg clindamycin per milliliter. CLEOCIN T Topical Gel contains clindamycin phosphate, USP, at a concentration equivalent to 10 mg clindamycin per gram. Each CLEOCIN T Topical Solution pledget applicator contains approximately 1 mL of topical solution.

Clindamycin phosphate is a water soluble ester of the semi-synthetic antibiotic produced by a 7(S)-chloro-substitution of the 7(R)-hydroxyl group of the parent antibiotic lincomycin.

The solution contains isopropyl alcohol 50% v/v,

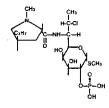
propylene glycol, and water.

The gel contains allantoin, carbomer 934P, methylparaben, polyethylene glycol 400, propy-

lene glycol, sodium hydroxide, and purified water.

The lotion contains cetostearyl alcohol (2.5%); glycerin; glyceryl stearate SE (with potassium monostearate); isostearyl alcohol (2.5%); methylparaben (0.3%); sodium lauroyl sarcosinate; stearic acid; and purified water.

The structural formula is represented below:



The chemical name for clindamycin phosphate is Methyl 7-chloro-6,7,8-trideoxy-6-(1-methyl-trans-4-propyl-1-2-pyrrolidinecarboxamido)-1-thio-i--threo-€-b-galacto-octopyranoside 2-(dihydrogen\_phosphate).

CLINICAL PHARMACOLOGY Although clindamycin phosphate is inactive in

vitro, rapid in vivo hydrolysis converts this com-pound to the antibacterially active clindamycin. Cross resistance has been demonstrated between clindamycin and lincomycin.





Applicant should replace "E" with "(a)

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Antagonism has been demonstrated between clindamycin and erythromycin.
Following multiple topical applications of clin-

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 CLEOCIN T 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.

## INDICATIONS AND USAGE

CLEOCIN T Topical Solution, CLEOCIN T Topical Gel and CLEOCIN T Topical Lotion are indicated in the treatment of acne vulgaris. In view of the potential for diarrhea, bloody diarrhea and pseudomembranous colitis, the physician should consider whether other agents are more appropriate. (See CONTRAINDICATIONS, WARNINGS and ADVERSE REACTIONS.)

### CONTRAINDICATIONS

CLEOCIN T Topical Solution, CLEOCIN T Topical Gel and CLEOCIN T Topical Lotion are contraindicated in individuals with a history of hypersensitivity to preparations containing clindamycin or lincomycin, a history of regional enteritis or ulcerative colitis, or a history of antibiotic-associated colitis

#### WARNINGS

Orally and parenterally administered clindamycin has been associated with severe colitis which may result in patient death. Use of the topical formulation of clindamycin results in absorption of the antibiotic from the skin surface. Diarrhea, bloody diarrhea, and colitis (including pseudomembranous colitis) have been reported with the use of topical and systemic clindamycin.

Studies indicate a toxin(s) produced by clostridia is one primary cause of antibiotic-associated colitis. The colitis is usually characterized by severe persistent diarrhea and severe abdominal cramps and may be associated with the passage of blood and mucus. Endoscopic examination may reveal pseudomembranous colitis. Stool culture for Clostridium difficile and stool assay for C. difficile toxin may be helpful diagnostically.

When significant diarrhea occurs, the drug should be discontinued. Large bowel endoscopy should be considered to establish a definitive diagnosis in cases of severe diarrhea.

Antiperistaltic agents such as opiates and diphenoxylate with atropine may prolong and/or worsen the condition. Vancomycin

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has been found to be effective in the treatment of antibiotic-associated pseudomembranous colitis produced by *Clostridium difficile*. The usual adult dosage is 500 milligrams to 2 grams of vancomycin orally per day in three to four divided doses administered for 7 to 10 days. Cholestyramine or colestipol resins bind vancomycin in vitro. If both a resin and vancomycin are to be administered concurrently, it may be advisable to separate the time of administration of each drug.

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

# PRECAUTIONS

General

CLEOCIN T Topical Solution contains an alcohol base which will cause burning and irritation of the eye. In the event of accidental contact with sensitive surfaces (eye, abraded skin, mucous membranes), bathe with copious amounts of cool tap water. The solution has an unpleasant taste and caution should be exercised when applying medication around the mouth.

CLEOCIN T should be prescribed with caution in atopic individuals.

#### **Drug Interactions**

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.

# Pregnancy: Teratogenic effects—Pregnancy Category B

Reproduction studies have been performed in rats and mice using subcutaneous and oral doses of clindamycin ranging from 100 to 600 mg/kg/day and have revealed no evidence of impaired fertility or harm to the fetus due to clindamycin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

#### **Nursing Mothers**

It is not known whether clindamycin is excreted in human milk following use of CLEOCIN T. However, orally and parenterally administered clindamycin has been reported to appear in breast milk. Because of the potential for serious adverse reactions in nursing infants, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

#### Pediatric Use

Safety and effectiveness in pediatric patients under the age of 12 have not been established.

### ADVERSE REACTIONS

In 18 clinical studies of various formulations of CLEOCIN T using placebo vehicle and/or active comparator drugs as controls, patients experienced

# **Geriatric Use**

Clinical studies for Cleocin T did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients.

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a number of treatment emergent adverse dermatologic events [see table below].

Number of Patients Reporting Events

Treatment Emergent Adverse Event	Solution n=553(%)	Gel n=148(%)	Lotion n=160(%)
Burning	62 (11)	15 (10)	17 (11)
Itching	36 ( 7)	15 (10)	17 (11)
Burning/Itching	60 (11)	# ( – )	# ( – )
Dryness	105 (19)	34 (23)	29 (18)
Erythema	86 (16)	10 ( 7)	22 (14)
Oiliness/Oily Skin	8 (1)	26 (18)	12* (10)
Peeling	61 (11)	# ( - )	11 ( 7)
# not recorded			

of 126 subjects

Orally and parenterally administered clindamycin has been associated with severe colitis which may end fatally.

Cases of diarrhea, bloody diarrhea and colitis (including pseudomembranous colitis) have been reported as adverse reactions in patients treated with oral and parenteral formulations of clindamycin and rarely with topical clindamycin (see WARNINGS).

Abdominal pain and gastrointestinal disturbances as well as gram-negative folli-culitis have also been reported in association with the use of topical formulations of clindamycin.

#### **OVERDOSAGE**

Topically applied CLEOCIN T can be absorbed in sufficient amounts to produce systemic effects. (See WARNINGS.)

#### DOSAGE AND ADMINISTRATION

Apply a thin film of CLEOCIN T Topical Solution, CLEOCIN T Topical Lotion, CLEOCIN T Topical Lotion, CLEOCIN T Topical Gel, or use a CLEOCIN T Topical Solution pledget for the application of CLEOCIN T twice daily to affected area. More than one pledget may be used. Each pledget should be used only once and then be discarded.

Lotion: Shake well immediately before using. Pledget: Remove pledget from foil just before use. Do not use if the seal is broken. Discard after

Keep all liquid dosage forms in containers tightly closed.

#### **HOW SUPPLIED**

CLEOCIN T Topical Solution containing clindamycin phosphate equivalent to 10 mg clindamycin per millilliter is available in the following sizes:
30 mL applicator bottle—NDC 0009-3116-01
60 mL applicator bottle—NDC 0009-3116-02
Carton of 60 single-use pledget applicators— NDC 0009-3116-14

CLEOCIN T Topical Gel containing clindamycin phosphate equivalent to 10 mg clindamycin per gram is available in the following sizes:

60 gram tube—NDC 0009-3331-01

30 gram tube—NDC 0009-3331-02

CLEOCIN T Topical Lotion containing clin-

damycin phosphate equivalent to 10 mg clin-

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damycin per mitliliter is available in the following size:
60 mL plastic squeeze bottle—NDC 0009-3329-01
Store at controlled room temperature 20° to 25°C (68° to 77°F) [see USP].
Protect from freezing.

Pt only
Pharmacia & Upjohn Company
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Kalamazoo, MI 49001, USA
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