

DATA SHEET

Clindatech Clindamycin hydrochloride topical solution

NAME OF THE MEDICINE

Clindatech Topical Solution

Pharmacopoeial name (or INN of the medicine or each active pharmaceutical ingredient)

Clindamycin hydrochloride

Strength of each active pharmaceutical ingredient

10mg/mL

Pharmacopoeial grade

B.P or Pharm. Eur.

PRESENTATION

Description of dose form, including strength, colour, flavour, dimensions and markings

Clindamycin (as hydrochloride) 10mg/mL in a clear hydroalcoholic solution

USES

Actions

Pharmacotherapeutic group

Acne, keratolytics and cleansers

Mechanism of action

Clindamycin is a lincosamide antibiotic obtained as a semi-synthetic derivative from cultures of *Streptomyces lincolnensis*. It is active *in vitro* and *in vivo* against most gram-positive cocci and several anaerobic and micro-aerophilic gram-negative and gram-positive organisms including *Propionibacterium acnes*, a resident anaerobe found in acne-susceptible follicles.

Cross-resistance has been demonstrated between clindamycin and lincomycin. Antagonism has been demonstrated between clindamycin and erythromycin.

Clindamycin may be bactericidal in action, depending on the concentration of the drug attained at the site of infection and the susceptibility of the infecting organism. *In vitro* studies showed that the minimum inhibitory concentration of clindamycin against most wild strains of *P. acnes* (46 strains at the concentration of 10^8 /mL) ranged from 0.05 to 0.1 microgram/mL or below. The antibacterial action appears to relate to its ability in inhibiting ribosomal protein synthesis in susceptible organisms by binding to 50S ribosomal subunits.

The precise mechanism by which clindamycin reduces acne lesions has not been fully elucidated. Its therapeutic efficacy appears to act through its ability to decrease acne lesions, suppress or eliminate *P. acnes* in the sebaceous follicles, inhibit lipase activity, and reduce the levels of free fatty acids in skin surface lipids. Applied to the skin, clindamycin markedly reduces the follicular population of *P. acnes* and the concentration of skin surface free fatty acids.

Pharmacokinetics

Pharmacokinetic studies have not been undertaken with Clindatech Topical Solution. Published results of studies which involved other clindamycin formulations are described below.

In an *in vitro* model using human skin, approximately 10% of the dose was absorbed into the stratum corneum following topical application of a 1% hydroalcoholic solution of radiolabelled clindamycin as the hydrochloride.

Absorption of clindamycin into comedones was assessed in an *in vitro* study in which comedones were removed from acne patients who had applied 1% clindamycin hydrochloride twice daily for 2 weeks or longer. The whole comedonal concentration of clindamycin ranged from 0-5microgram of comedonal material with a mean concentration of 0.82microgram/mg. It was stated that these antibiotic concentrations are above the minimum inhibitory concentration of clindamycin for most wild strains of *P. acnes in vitro* at 0.05-0.1microgram/mL or below.

Systemic absorption of clindamycin was assessed by measurement of serum clindamycin in another open study of 18 acne patients. No clindamycin was detected in serum from any of the subjects obtained one to nine hours after application of a 1% clindamycin hydrochloride solution. The patients had been instructed to apply the solution with their fingertips to the affected areas 2 to 3 times daily. The duration of use ranged from 6-150 days with mean duration at 43.4days, but the total volume of solution and surface area of application was not stated. The lower limit of quantification was 1microgram/mL.

Indications

Clindatech Topical Solution is indicated for the topical treatment of acne vulgaris particularly forms in which comedones, papules and pustules predominate.

DOSAGE AND ADMINISTRATION

Clindatech Solution is for external use only and is applied directly to the skin.

Wash the entire face with, mild, non-alkaline soap and warm water prior to any application. Using the Dab-O-Matic applicator provided, apply a thin film directly to each acne lesion or to areas having potential of eruption.

Clindatech Solution is usually applied to affected areas twice daily, once every morning and once at bedtime. The frequency of treatment will depend on the severity of acne condition as well as skin tolerance, but should not be more than twice daily.

Advice for monitoring

Treatment of acne vulgaris needs to be individualised according to the type of lesion predominate and the response of therapy. Application to the entire face of an average adult is equivalent to approximately 2mL of solution or clindamycin 20mg.

Generally, a decrease in the number of inflammatory lesions should be noticed after two or six weeks, but more than eight weeks of therapy may be required before any definite beneficial effects are observed. Therapy is usually continued until a satisfactory response is obtained. If condition does not seem to improve or worsens, modification of treatment or alternative therapy should be considered.

CONTRAINDICATIONS

Clindatech is contraindicated in patients with known history of hypersensitivity reactions to preparations containing clindamycin, lincomycin or other ingredients in the formulation.

WARNINGS & PRECAUTIONS

Conditions under which may be recommended to sub-groups of at-risk patients

Clindatech Solution is not indicated in severe and deep nodulo-cystic acne.

The drug should not be used for patients with a history of ulcerative colitis, regional enteritis or antibiotic-associated colitis.

Oral and parenteral clindamycin have been associated with severe diarrhoea and pseudomembranous colitis which may result inpatient death. Use of clindamycin hydrochloride topical solution results in absorption of the antibiotic from the skin surface. Diarrhoea, bloody diarrhoea and pseudomembranous colitis have been reported with the use of topical and systemic clindamycin.

It is important to consider the diagnosis of antibiotic associated colitis in patients who develop diarrhoea or colitis associate with antibiotic use. Antibiotic-associated colitis (whether pseudomembranous or not) appear to result from a toxin produced by *Clostridium difficile* in the alimentary canal. The severity of the colitis may range from mild watery diarrhoea to sever, persistent, life-threatening bloody diarrhoea. The diagnosis is usually made by recognition of the clinical symptoms. The symptomds may occur during therapy or up to several weeks after cessation of therapy. Additional confirmatory signs of antibiotic-associated colitis include pseudomembrane formation seen with colonoscopy, *C. difficile* culture from the stool, or assay of the stool for *C. difficile* toxin.

Mild cases usually respond to drug discontinuation alone. However, in moderate to severe cases appropriate therapy with a suitable oral

antibacterial agent effective against *C. difficile* should be considered. Fluid, electrolytes and protein replacement should be provided when indicated.

Drugs which delay peristalsis, eg opiates and diphenoxylate with atropine (Lomotil) may prolong and/or worsen the condition and should not be used.

Use in Pregnancy

Risk of use in pregnancy and class statement in reference to the Australian Categorisation System of Risk of Prescribing Medicines in Pregnancy.

Category A.

Conclusions from animal reproduction/fertility studies.

Reproductive studies have been performed in rats and mice using oral and parenteral doses up to 300mg/kg/day and have revealed no evidence of harm to the foetus due to clindamycin. There exists, however, no adequate and well-controlled studies to demonstrate safety of use in pregnant women.

Use in Lactation

Information on the excretion of actives or metabolites in breast milk and consequences for the well-being of the child.

It is not known if clindamycin is excreted in human milk following use of topically administered clindamycin. However, after oral or parenteral administration clindamycin has been detected in human milk. In the absence of any adequate and well controlled studies, topical clindamycin should not be used in lactating women.

Precautions to prevent or decrease the harm from adverse reactions

FOR EXTERNAL USE ONLY

Clindamycin topical solution has an unpleasant taste. Caution should be exercised when applying the solution around the mouth to avoid any possible ingestion.

Avoid any contact with eyes, eyelids, abraded skin, nasal folds, lips or mucous membranes because of the irritating dryness caused by the alcoholic solvent. In the event of any accidental contact, bathe with copious amounts of cool water.

The topical solution contains alcohol and may cause a burning sensation especially in those patients with sensitive skins. Sensitivity reactions including contact dermatitis and rash are rare but may occur in individuals who are hypersensitive to clindamycin, lincomycin or any ingredient of the formulation.

Clindamycin should be prescribed with caution in atopic individuals or patients with impaired hepatic or renal functions. Safety has not been established when applied to areas affected concurrently with other dermatoses or to severely inflamed skin.

The use of clindamycin may cause overgrowth of non-susceptible organisms. Although rare, gram-negative folliculitis has been reported following topical application of clindamycin. If superinfection occurs, discontinue treatment.

Use of topical clindamycin has been associated with the development of strains of *P. acnes* resistant to clindamycin in some patients. If there is evidence of the development of clinical resistance during treatment, consideration should be given to discontinuation of treatment with topical clindamycin solution.

INTERACTIONS

Interactions with other medicines, other substances etc., including mechanism of action, effect on plasma levels, clinical consequences and recommendations on dosage adjustment.

Concurrent use of topical preparations containing alcohol (eg astringents, after shave lotion, medicated cosmetics) should be avoided because they potentiate the drying action on the skin. The solvent vehicles in some abrasive cleansers, medicated soaps or cosmetics are alcoholic. They may cause a cumulative irritant effect in patients undergoing treatment.

Topical acne preparations containing desquamative or abrasive agents (eg benzoyl peroxide, salicylic acid, resorcinol or tretinoin) may sensitise the skin to various local reactions. Concurrent use of these agents and topical clindamycin should be treated with caution in combination therapy. Concomitant use of other anti-acne or comedogenic cosmetic products should be avoided.

Both clindamycin and erythromycin appear to compete for the same ribosomal binding site in exerting their antibacterial action. Antagonism between the two anti-infective agents has been demonstrated. Concomitant use of either antibiotic in the topical treatment of acne is not recommended.

Clindamycin has been shown to have neuromuscular blocking properties that may enhance the actions of other neuromuscular blocking agents.

Abnormal laboratory test results associated with the medicine.

No information is available about abnormal laboratory test results associated with the use of topical clindamycin in humans.

ADVERSE REACTIONS

A list of all adverse reactions occurring at a frequency of 1% or more (ie significant) and all serious or potentially serious adverse reactions

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OVERDOSAGE

Symptoms and treatment overdose

No information is available concerning overdose of topical clindamycin in humans.

PHARMACEUTICAL PRECAUTIONS

Incompatibilities

Information on the physical or chemical compatibility of topical clindamycin with other topical preparations is not available.

Shelf life of the medicine as packaged

Two years

Storage Conditions

Store below 30°C

MEDICINE CLASSIFICATION

Classification statement

Prescription Medicine

PACKAGE QUANTITIES

Pack sizes of each dose form and strength

100mL, 50mL, 30mL, 6mL bottle

Clindatech Topical Solution pack consists of a white HDPE bottle fitted with a screw-neck top and a Dab-O-matic applicator and a polypropylene closure.

FURTHER INFORMATION

List of excipients

Diocetyl malate, ethanol, purified water

SPONSOR NAME AND ADDRESS

Valeant Pharmaceuticals NZ Ltd
C/O Supply Chain Solutions

74 Westney Road Airport Oaks Auckland
New Zealand

Ph: +64 9 257 0521

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