ANADA 200-316, Approved by FDA

Clintabs® Tablets

brand of clindamycin hydrochloride tablets, USP

DESCRIPTION

Clintabs Tablets contain clindamycin hydrochloride which is the hydrated salt of clindamycin. Clindamycin is a semisynthetic antibiotic produced by a 7(S)-chlorosubstitution of the 7(R)-hydroxyl group of a naturally produced antibiotic produced by *Streptomyces lincolnensis var. lincolnensis*.

Clintabs Tablets (For Use in Dogs Only):

25 mg Tablet, each white bisected tablet is marked "C" above the bisect and "25" below the bisect and contains clindamycin hydrochloride equivalent to 25 mg of clindamycin.

75 mg Tablet, each white bisected tablet is marked "C" above the bisect and "75" below the bisect and contains clindamycin hydrochloride equivalent to 75 mg of clindamycin.

150 mg Tablet, each white tablet is marked "C 150" on one side and contains clindamycin hydrochloride equivalent to 150 mg of clindamycin.

ACTIONS

Site and Mode of Action: Clindamycin is an inhibitor of protein synthesis in the bacterial cell. The site of binding appears to be in the 50S sub-unit of the ribosome. Binding occurs to the soluble RNA fraction of certain ribosomes, thereby inhibiting the binding of amino acids to those ribosomes. Clindamycin differs from cell wall inhibitors in that it causes irreversible modification of the protein-synthesizing subcellular elements at the ribosomal level.

MICROBIOLOGY:

Clindamycin is a lincosaminide antimicrobial agent with activity against a wide variety of aerobic and anaerobic bacterial pathogens. Clindamycin is a bacteriostatic compound that inhibits bacterial protein synthesis by binding to the 50S ribosomal subunit. The minimum inhibitory concentrations (MICs) of Gram-positive and obligate anaerobic pathogens isolated from dogs in the United States are presented in Table 1. Bacteria were isolated in 1998-1999. All MICs were performed in accordance with the National Committee for Clinical Laboratory Standards (NCCLS).

Table 1. Clindamycin MIC Values (µg/mL) from Diagnostic Laboratory Survey Data Evaluating Canine Pathogens in the U.S. during 1998-99[1]

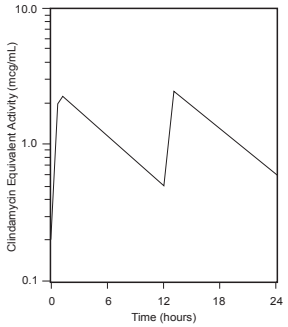
Organism	Number of Isolates	MIC_{50}	MIC_{85}	MIC_{90}	Range
Soft Tissue/Wound[2]					
Staphylococcus aureus	17	0.5	0.5	≥4.0	0.25-≥4.0
Staphylococcus intermedius	28	0.25	0.5	≥4.0	0.125-≥4.0
Staphylococcus spp.	18	0.5	0.5	≥4.0	.025-≥4.0
Beta-hemolytic streptococci	46	0.5	0.5	≥4.0	0.25-≥4.0
Streptococcus spp.	11	0.5	≥4.0	≥4.0	0.25-≥4.0
Osteomyelitis/Bone[3]					
Staphylococcus aureus	20	0.5	0.5	0.5	0.5[4]
Staphylococcus intermedius	15	0.5	≥4.0	≥4.0	0.25-≥4.0
Staphylococcus spp.	18	0.5	≥4.0	≥4.0	0.25-≥4.0
Beta-hemolytic streptococci	21	0.5	2.0	2.0	0.25-≥4.0
Streptococcus spp.	21	≥4.0	≥4.0	≥4.0	0.25-≥4.0
Dermal/Skin[5]					
Staphylococcus aureus	25	0.5	≥4.0	≥4.0	0.25-≥4.0
Staphylococcus intermedius	48	0.5	≥4.0	≥4.0	0.125-≥4.0
Staphylococcus spp.	32	0.5	≥4.0	≥4.0	0.25-≥4.0
Beta-hemolytic streptococci	17	0.5	0.5	0.5	0.25-0.5

PHARMACOLOGY

Absorption: Clindamycin hydrochloride is rapidly absorbed from the canine gastrointestinal tract.

Dog Serum Levels: Serum levels at or above 0.5 µg/mL can be maintained by oral dosing at a rate of 2.5 mg/lb of clindamycin hydrochloride every 12 hours. This same study revealed that average peak serum concentrations of clindamycin occur 1 hour and 15 minutes after oral dosing. The elimination half-life for clindamycin in dog serum was approximately 5 hours. There was no bioactivity accumulation after a regimen of multiple oral doses in healthy dogs.

Clindamycin Serum Concentrations
2.5 mg/lb (5.5 mg/kg) After B.I.D. Oral Dose
of Clindamycin Hydrochloride to Dogs



METABOLISM AND EXCRETION

Extensive studies of the metabolism and excretion of clindamycin hydrochloride administered orally in animals and humans have shown that unchanged drug and bioactive and bioinactive metabolites are excreted in urine and feces. Almost all of the bioactivity detected in serum after clindamycin hydrochloride administration is due to the parent molecule (clindamycin). Urine bioactivity, however, reflects a mixture of clindamycin and active metabolites, especially N-dimethyl clindamycin and clindamycin sulfoxide.

ANIMAL SAFETY SUMMARY

Rat and Dog Data: One year oral toxicity studies in rats and dogs at doses of 30, 100 and 300 mg/kg/day (13.6, 45.5 and 136.4 mg/lb/day) have shown clindamycin hydrochloride capsules to be well tolerated. Differences did not occur in the parameters evaluated to assess toxicity when comparing groups of treated animals with contemporary controls. Rats administered clindamycin hydrochloride at 600 mg/kg/day (272.7 mg/lb/day) for six months tolerated the drug well; however, dogs orally dosed at 600 mg/kg/day (272.7 mg/lb/day) vomited, had anorexia, and subsequently lost weight. At necropsy these dogs had erosive gastritis and focal areas of necrosis of the mucosa of the gall bladder.

Safety in gestating bitches or breeding males has not been established.

[1] The correlation between the *in vitro* susceptibility data and clinical response has not been determined.
[2] Soft Tissue/Wound: includes samples labeled wound, abscess, aspirate, exudates, draining tract, lesion, and mass
[3] Osteomyelitis/Bone: includes samples labeled bone, fracture, joint, tendon
[4] No range, all isolates yielded the same value
[5] Dermal/Skin: includes samples labeled skin, skin swab, biopsy, incision, lip

INDICATIONS

Clintabs (brand of clindamycin hydrochloride) Tablets (for use in dogs only) are indicated for the treatment of infections caused by susceptible strains of the designated microorganisms in the specific conditions listed below:

Dogs: Skin infections (wounds and abscesses) due to: coagulase positive staphylococci *(Staphylococcus aureus* or *Staphylococcus intermedius)*.
Deep wounds and abscesses due to Bacteroides *fragilis, Prevotella melaninogenicus, Fusobacterium necrophorum* and *Clostridium perfringens.*
Dental infections due to *Staphyloccus aureus, Bacteroides fragilis, Prevotella melaninogenicus, Fusobacterium necrophorum* and *Clostridium perfringens.*
Osteomyelitis due to *Staphylococcus aureus, Bacteroides fragilis, Prevotella melaninogenicus, Fusobacterium necrophorum* and *Clostridium perfringens.*

CONTRAINDICATIONS

Clintabs Tablets are contraindicated in animals with a history of hypersensitivity to preparations containing clindamycin or lincomycin.

Because of potential adverse gastrointestinal effects, do not administer to rabbits, hamsters, guinea pigs, horses, chinchillas or ruminating animals.

WARNINGS

Keep out of reach of children. Not for human use.

PRECAUTIONS

During prolonged therapy of one month or greater, periodic liver and kidney function tests and blood counts should be performed.

The use of clindamycin hydrochloride occasionally results in overgrowth of non-susceptible organisms such as clostridia and yeasts. Therefore, the administration of Clintabs Tablets should be avoided in those species sensitive to the gastrointestinal effects of clindamycin (see **CONTRAINDICATIONS**).

Should superinfections occur, appropriate measures should be taken as indicated by the clinical situation.

Patients with very severe renal disease and/or very severe hepatic disease accompanied by severe metabolic aberrations should be dosed with caution, and serum clindamycin levels monitored during high-dose therapy.

Clindamycin hydrochloride has been shown to have neuromuscular blocking properties that may enhance the action of other neuromuscular blocking agents. Therefore, Clintabs Tablets should be used with caution in animals receiving such agents.

Safety in gestating bitches or breeding male dogs has not been established.

ADVERSE REACTIONS

Side effects occasionally observed in either clinical trials or during clinical use were vomiting and diarrhea.

To report adverse reactions or a suspected adverse reaction, call 1-800-338-3659.

DOSAGE AND ADMINISTRATION

Dogs:

Infected Wounds, Abscesses, and Dental Infections

Oral: 2.5-15.0 mg/lb body weight every 12 hours.

Duration: Treatment with clindamycin hydrochloride products may be continued up to a maximum of 28 days if clinical judgment indicates. Treatment of acute infections should not be continued for more than three or four days if no response to therapy is seen.

Dosage Schedule:

Tablets

Clintabs 25 mg, administer 1-6 tablets every 12 hours for each 10 pounds of body weight.

Clintabs 75 mg, administer 1-6 tablets every 12 hours for each 30 pounds of body weight.

Clintabs 150 mg, administer 1-6 tablets every 12 hours for each 60 pounds of body weight.

Dogs:

Osteomyelitis

Oral: 5.0-15.0 mg/lb body weight every 12 hours.

Duration: Treatment with clindamycin hydrochloride is recommended for a minimum of 28 days. Treatment should not be continued for longer than 28 days if no response to therapy is seen.

Dosage Schedule:

Tablets

Clintabs 25 mg, administer 2-6 tablets every 12 hours for each 10 pounds of body weight.

Clintabs 75 mg, administer 2-6 tablets every 12 hours for each 30 pounds of body weight.

Clintabs 150 mg, administer 2-6 tablets every 12 hours for each 60 pounds of body weight.

HOW SUPPLIED

Clintabs Tablets are available as:

25 mg - bottles of 400
75 mg - bottles of 200
150 mg - bottles of 100

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To report a suspected adverse reaction or to request a material safety data sheet (MSDS), call 1-800-338-3659.

Store at controlled room temperature 20° to 25° C (68° to 77° F) [see USP].

Caution: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

Mfd. for
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Clintabs is a registered trademark of Virbac AH, Inc.