

HFA-305

Approval Date: APR 21 2004

FREEDOM OF INFORMATION SUMMARY
SUPPLEMENTAL ABBREVIATED NEW ANIMAL
DRUG APPLICATION (ANADA)

ANADA 200-298

Clindamycin Hydrochloride Capsules
(clindamycin HCl)

Expands the dosage range and revises the indications
section in dogs.

Sponsored by:

Phoenix Scientific, Inc.
3915 South 48th St. Terrace
St. Joseph, MO 64503

FOISI 1

FREEDOM OF INFORMATION SUMMARY

1. General Information:

- a. File Number: ANADA 200-298
- b. Sponsor: Phoenix Scientific, Inc.
3915 South 48th St. Terrace
St. Joseph, MO 64503
- Drug Labeler Code: 059130
- c. Established Names: Clindamycin hydrochloride capsules
- d. Proprietary Name: Clindamycin Hydrochloride Capsules
- e. Dosage Form: Capsules
- f. How Supplied: 100, 200, & 600 count bottles
- g. How Dispensed: Rx
- h. Amount of Active Ingredients: Each capsule contains 25, 75, 150, 300 mg
clindamycin hydrochloride
- i. Route of Administration: Oral
- j. Species/Class: Dogs
- k. Recommended Dosage: Wounds, abscesses, and dental infections: 2.5 to
15 mg per pound of body weight every 12 hours
for a maximum of 28 days. Osteomyelitis: 5.0 to
15 mg/lb of body weight every 12 hours for a
minimum of 28 days.
- l. Pharmacological Category: Antibacterial
- m. Indications: Clindamycin Hydrochloride Capsules are
indicated for the treatment of infections caused by
susceptible strains of the designated
microorganisms in the specific conditions listed
below:

For the treatment of skin infections (wounds and abscesses) due to coagulase-positive staphylococci (*Staphylococcus aureus* or *S. intermedius*), deep wounds and abscesses due to *Bacteroides fragilis*, *Prevotella melaninogenicus*, *Fusobacterium necrophorum*, and *Clostridium perfringens*, dental infections due to *S. aureus*, *B. fragilis*, *P. melaninogenicus*, *F. necrophorum*, and *C. perfringens*, and osteomyelitis due to *S. aureus*, *B. fragilis*, *P. melaninogenicus*, *F. necrophorum*, and *C. perfringens*.

n. Pioneer Product:

ANTIROBE CAPSULES; Clindamycin HCl;
NADA 120-161; Pharmacia & Upjohn Company

o. Effect of Supplements:

The supplements provide for an expanded dosage range for dogs and an additional capsule size, 300 mg. The pioneer sponsor, Pharmacia & Upjohn Co., received approval of these additional claims with no exclusivity periods as seen in the FEDERAL REGISTER on August 27, 2002.

2. TARGET ANIMAL SAFETY AND DRUG EFFECTIVENESS:

Under the provisions of the Federal Food, Drug, and Cosmetic Act, as amended by the Generic Animal Drug and Patent Term Restoration Act (GADPTRA) an Abbreviated New Animal Drug Application (ANADA) may be submitted for a generic version of an approved new animal drug (pioneer product). New target animal safety and effectiveness data and human food safety data (other than tissue residue data) are not required for approval of an ANADA.

Ordinarily, the ANADA sponsor shows that the generic product is bioequivalent to the pioneer, which has been shown to be safe and effective. If bioequivalence is demonstrated through a clinical endpoint study, then a tissue residue study to establish the withdrawal time for the generic product should also be conducted. For certain dosage forms, the agency will grant a waiver from the requirement of an *in vivo* bioequivalence study. (55 FR 24645, June 18, 1990; Fifth GADPTRA Policy Letter; Bioequivalence Guideline, October 9, 2002).

Based on the formulation characteristics of the generic product, Phoenix Scientific, Inc. was granted a waiver from the requirement of an *in vivo* bioequivalence study for the generic product Clindamycin Hydrochloride Capsules. The generic product is administered as an oral capsule, contains the same active ingredient in the same concentration and dosage form as the pioneer product, and contains no inactive ingredients that may significantly affect the absorption of the active ingredients. The pioneer product, ANTIROBE (clindamycin HCl), sponsored by Pharmacia & Upjohn Co., NADA 120-161, was approved on June 6, 1984.

3. HUMAN SAFETY:

This new animal drug is to be labeled for use in dogs, which are non-food animals. Because this new animal drug is not intended for use in food-producing animals, data on human safety pertaining to drug residues in food were not required for approval of this NADA.

4. AGENCY CONCLUSIONS:

This supplemental ANADA submitted under section 512(b) of the Federal Food, Drug, and Cosmetic Act satisfies the requirements of section 512(n) of the act and demonstrates that Clindamycin Hydrochloride Capsules (clindamycin HCl), when used under its proposed conditions of use, is safe and effective for its labeled indications.

5. ATTACHMENTS:

Facsimile generic labeling (ANADA 200-298) and currently approved pioneer labeling (NADA 120-161) are attached as indicated below:

Label (Pioneer)-ANTIROBE CAPSULES, insert and box

Label (generic)-Clindamycin Hydrochloride Capsules, insert, box, & bottle

Antirobe®

brand of clindamycin hydrochloride capsules, USP

Antirobe Aquadrops®

brand of clindamycin hydrochloride liquid

Pharmacia
&Upjohn

Antirobe

brand of clindamycin hydrochloride capsules, USP

Antirobe Aquadrops

brand of clindamycin hydrochloride liquid

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

DESCRIPTION

ANTIROBE Capsules and ANTIROBE AQUADROPS Liquid 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*.

ANTIROBE Capsules (For Use in Dogs Only): 25 mg Capsule, each yellow and white capsule contains clindamycin hydrochloride equivalent to 25 mg of clindamycin

75 mg Capsule, each green capsule contains clindamycin hydrochloride equivalent to 75 mg of clindamycin

150 mg Capsule, each light blue and green capsule contains clindamycin hydrochloride equivalent to 150 mg of clindamycin.

300 mg Capsule, each light blue capsule contains clindamycin hydrochloride equivalent to 300 mg of clindamycin.

ANTIROBE AQUADROPS Liquid (For Use in Dogs and Cats) is a palatable formulation intended for oral administration. Each mL of ANTIROBE AQUADROPS Liquid contains clindamycin hydrochloride equivalent to 25 mg clindamycin; and ethyl alcohol, 8.64%.

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 lincosamide 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 and cats in the United States are presented in Table 1 and Table 2. Bacteria were isolated in 1998-1999. All MICs were performed in accordance with the National Committee for Clinical Laboratory Standards (NCCLS).

Antirobe

brand of clindamycin hydrochloride capsules, USP

Antirobe Aquadrops

brand of clindamycin hydrochloride liquid

Table 1. Clindamycin MIC Values ($\mu\text{g/mL}$) from Diagnostic Laboratory Survey Data Evaluating Canine Pathogens in the U.S. during 1998-99¹

Organism	Number of Isolates	MIC ₅₀ MIC ₈₀ MIC ₉₀			Range
		MIC ₅₀	MIC ₈₀	MIC ₉₀	
Soft Tissue/Wound²					
<i>Staphylococcus aureus</i>	17	0.5	0.5	24.0	0.25-24.0
<i>Staphylococcus intermedius</i>	28	0.25	0.5	24.0	0.125-24.0
<i>Staphylococcus spp.</i>	18	0.5	0.5	24.0	0.25-24.0
Beta-hemolytic streptococci	46	0.5	0.5	24.0	0.25-24.0
<i>Streptococcus spp.</i>	11	0.5	24.0	24.0	0.25-24.0

Osteomyelitis/Bone³					
<i>Staphylococcus aureus</i>	20	0.5	0.5	0.5	0.5 ⁴
<i>Staphylococcus intermedius</i>	15	0.5	24.0	24.0	0.25-24.0
<i>Staphylococcus spp.</i>	18	0.5	24.0	24.0	0.25-24.0
Beta-hemolytic streptococci	21	0.5	2.0	2.0	0.25-24.0
<i>Streptococcus spp.</i>	21	24.0	24.0	24.0	0.25-24.0

Dermal/Skin⁵					
<i>Staphylococcus aureus</i>	25	0.5	24.0	24.0	0.25-24.0
<i>Staphylococcus intermedius</i>	48	0.5	24.0	24.0	0.125-24.0
<i>Staphylococcus spp.</i>	32	0.5	24.0	24.0	0.25-24.0
Beta-hemolytic streptococci	17	0.5	0.5	0.5	0.25-0.5

- 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

Antirobe

brand of clindamycin hydrochloride capsules, USP

Antirobe Aquadrops

brand of clindamycin hydrochloride liquid

Table 2. Clindamycin MIC Values ($\mu\text{g/mL}$) from Diagnostic Laboratory Survey Data Evaluating Feline Pathogens from Wound and Abscess Samples in the U.S. during 1998¹

Organism	Number of Isolates	MIC ₅₀ MIC ₈₀ MIC ₉₀			Range
		MIC ₅₀	MIC ₈₀	MIC ₉₀	
Bacteroides/Prevotella					
	30	0.06	4.0		0.015-4.0
Fusobacterium spp.					
	17	0.25	0.25		0.015-0.5
Peptostreptococcus spp.					
	18	0.13	0.5		0.015-8.0
Porphyromonas spp.					
	13	0.06	0.25		0.015-8.0

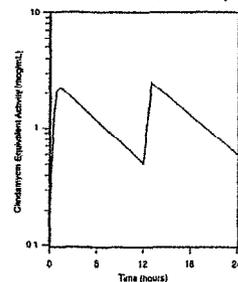
¹ The correlation between the *in vitro* susceptibility data and clinical response has not been determined

PHARMACOLOGY

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

Dog Serum Levels: Serum levels at or above 0.5 $\mu\text{g/mL}$ 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 Antirobe Capsules to Dogs



Antirobe

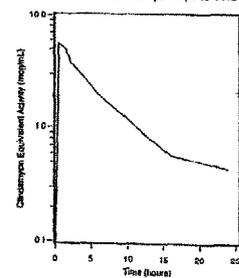
brand of clindamycin hydrochloride capsules, USP

Antirobe Aquadrops

brand of clindamycin hydrochloride liquid

Cat Serum Levels: Serum levels at or above 0.5 $\mu\text{g/mL}$ can be maintained by oral dosing at a rate of 5 mg/lb of clindamycin hydrochloride liquid every 24 hours. The average peak serum concentration of clindamycin occurs approximately 1 hour after oral dosing. The elimination half-life of clindamycin in feline serum is approximately 7.5 hours. In healthy cats, minimal accumulation occurs after multiple oral doses of clindamycin hydrochloride, and steady-state should be achieved by the third dose.

Clindamycin Serum Concentrations 5 mg/lb (11 mg/kg) After Single Oral Dose of Antirobe Aquadrops to Cats



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 ANTIROBE product 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

Pioneer

Antirobe®

brand of clindamycin hydrochloride capsules, USP

Antirobe Aquadrops®

brand of clindamycin hydrochloride liquid

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.

Cat Data: The recommended daily therapeutic dose range for clindamycin hydrochloride (ANTIROBE AQUADROPS Liquid) is 11 to 33 mg/kg/day (5 to 15 mg/lb/day) depending on the severity of the condition. Clindamycin hydrochloride (ANTIROBE AQUADROPS Liquid) was tolerated with little evidence of toxicity in domestic shorthair cats when administered orally at 10x the minimum recommended therapeutic daily dose (11 mg/kg; 5 mg/lb) for 15 days, and at doses up to 5x the minimum recommended therapeutic dose for 42 days. Gastrointestinal tract upset (soft feces to diarrhea) occurred in control and treated cats with emesis occurring at doses 3x or greater than the minimum recommended therapeutic dose (11 mg/kg/day; 5 mg/lb/day). Lymphocytic inflammation of the gallbladder was noted in a greater number of treated cats at the 110 mg/kg/day (50 mg/lb/day) dose level than for control cats. No other effects were noted. Safety in gestating queens or breeding male cats has not been established.

INDICATIONS

ANTIROBE (brand of clindamycin hydrochloride) Capsules (for use in dogs only) and AQUADROPS Liquid (for use in dogs and cats) 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 melaninogenica*, *Fusobacterium*

Antirobe

brand of clindamycin hydrochloride capsules, USP

Antirobe Aquadrops

brand of clindamycin hydrochloride liquid

nerophorum and *Clostridium perfringens*. Dental infections due to *Staphylococcus aureus*, *Bacteroides fragilis*, *Prevotella melaninogenica*, *Fusobacterium necrophorum* and *Clostridium perfringens*. Osteomyelitis due to *Staphylococcus aureus*, *Bacteroides fragilis*, *Prevotella melaninogenica*, *Fusobacterium necrophorum* and *Clostridium perfringens*.

Cats: Skin Infections (wounds and abscesses) due to *Staphylococcus aureus*, *Staphylococcus intermedius*, *Streptococcus* spp. Deep wounds and infections due to *Clostridium perfringens* and *Bacteroides fragilis*.

Dental Infections due to *Staphylococcus aureus*, *Staphylococcus intermedius*, *Streptococcus* spp., *Clostridium perfringens* and *Bacteroides fragilis*.

CONTRAINDICATIONS

ANTIROBE Capsules and ANTIROBE AQUADROPS Liquid 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 ruminant 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 ANTIROBE occasionally results in overgrowth of non-susceptible organisms such as clostridia and yeasts. Therefore, the administration of ANTIROBE 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, ANTIROBE should be used with caution in animals receiving such agents.

Safety in gestating bitches and queens or breeding male dogs and cats 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 1-800-793-0596.

Antirobe

brand of clindamycin hydrochloride capsules, USP

Antirobe Aquadrops

brand of clindamycin hydrochloride liquid

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 ANTIROBE 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:

Capsules

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

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

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

ANTIROBE 300 mg, administer 1-6 capsules every 12 hours for each 120 pounds of body weight.

Liquid

ANTIROBE AQUADROPS, administer 1-6 mL/10 lbs body weight every 12 hours.

Dogs:

Osteomyelitis

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

Duration: Treatment with ANTIROBE 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:

Capsules

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

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

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

ANTIROBE 300 mg, administer 2-6 capsules every 12 hours for each 120 pounds of body weight.

Liquid

ANTIROBE AQUADROPS, administer 2-6 mL/10 lbs body weight every 12 hours.

Cats:

Infected Wounds, Abscesses, and Dental Infections

5.0 - 15.0 mg/lb body weight once every 24 hours depending on the severity of the condition.

Duration: Treatment with ANTIROBE AQUADROPS Liquid may be continued up to a

Antirobe

brand of clindamycin hydrochloride capsules, USP

Antirobe Aquadrops

brand of clindamycin hydrochloride liquid

maximum of 14 days if clinical judgment indicates. Treatment of acute infections should not be continued for more than three to four days if no clinical response to therapy is seen.

Dosage Schedule:

ANTIROBE AQUADROPS, to provide 5.0 mg/lb, administer 1 mL/5 lbs body weight once every 24 hours; to provide 15.0 mg/lb, administer 3 mL/5 lbs body weight once every 24 hours.

HOW SUPPLIED

ANTIROBE Capsules are available as:

25 mg - bottles of 600NDC 0009-3043-01

75 mg - bottles of 200NDC 0009-3044-01

150 mg - bottles of 100NDC 0009-3045-01

150 mg - blister packages

of 100NDC 0009-3045-08

300 mg - blister packages

of 100NDC 0009-5015-01

NADA #120-161, Approved by FDA

ANTIROBE AQUADROPS Liquid is available as 20 mL filled in 30 mL bottles (25 mg/mL), supplied in packs containing 12 cartoned bottles with direction labels and calibrated dosing droppers, NDC 0009-3179-01.

NADA #135-940, Approved by FDA

To report a suspected adverse reaction or to request a material safety data sheet (MSDS), call 1-800-793-0596.

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

ANTIROBE AQUADROPS

Made by

Pharmacia & Upjohn Company
Kalamazoo, MI 49001, USA

ANTIROBE Capsules

Made in Canada for
Pharmacia & Upjohn Company
Kalamazoo, MI 49001, USA

By Pathon YM Inc.
Don Mills, Ontario, M3B 1Y5
CANADA

Revised February 2002

813 805 711

692074

3179-01-000

NDC 0009-5015-01
100 Capsules

ANTIROBE™
Capsules

clindamycin hydrochloride
capsules, USP

300 mg

773627

NDC 0009-5015-01
100 Capsules

Approved for use in dogs.
Recommended dosage:
For therapy of wounds, abscesses and dental
infections, 1-6 capsules for each 120 pounds
body weight every 12 hours.
For therapy of osteomyelitis, 2-6 capsules for
each 120 pounds body weight every 12 hours.



N 0009-5015-01 0

ANTIROBE™
Capsules

clindamycin hydrochloride capsules, USP
300 mg

Equivalent to 300 mg clindamycin
For Use in Dogs Only

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

NADA # 120-161 Approved by FDA

Made in Canada for
Pharmacia & Upjohn Company
Kalamazoo, MI 49001, USA
By Patheon YM Inc.
Toronto, Ontario
M3B 1Y5 Canada

See package insert for complete
product information.

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

Keep container tightly closed.

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

Each capsule contains: Clindamycin
hydrochloride equivalent to clindamycin, 300 mg.

817 709 0001

Made in Canada for
Pharmacia & Upjohn Company
Kalamazoo, MI 49001, USA
By Patheon YM Inc.
Toronto, Ontario
M3B 1Y5 Canada

**Approved for use in dogs.
Recommended dosage:**

For therapy of wounds, abscesses
and dental infections.

1-6 capsules for each 10 pounds
body weight every 12 hours.

For therapy of osteomyelitis.
2-6 capsules for each 10 pounds
body weight every 12
hours.

See package insert for
complete product
information.

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



Lot No.

Exp. Date

NDC 59130-721-43

**CLINDAMYCIN
HYDROCHLORIDE
CAPSULES**

Antibiotic

25 mg

Equivalent to 25 mg Clindamycin

CAUTION: Federal law restricts this drug to use
by or on the order of a licensed veterinarian.

FOR ANIMAL USE ONLY

Contains 600 Capsules

ANADA 200-298, Approved by FDA

AmTech[®]
Group, Inc.

Each capsule contains:
Clindamycin hydrochloride
equivalent to clindamycin,
25 mg.

OPEN
HERE
←

Keep container tightly closed.

Store at controlled room
temperature 20°-25°C (68°-77°F)

**KEEP OUT OF REACH
OF CHILDREN**

Manufactured by
Phoenix Scientific, Inc.
St. Joseph, MO 64503

801022

Rev. 11-02

Approved for use in canines.
Recommended dosage:
For therapy of wounds, abscesses
and dental infections.
1-6 capsules for each 60 pounds
body weight every 12 hours.

For therapy of
osteomyelitis.
2-6 capsules for each 60
pounds body weight
every 12 hours.

See package insert for
complete product
information.

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

Lot No.

Exp. Date

NDC 59130-723-34

**CLINDAMYCIN
HYDROCHLORIDE
CAPSULES**

Antibiotic

150 mg

Equivalent to 150 mg Clindamycin

CAUTION: Federal law restricts this drug to use
by or on the order of a licensed veterinarian.

FOR ANIMAL USE ONLY

Contains 100 Capsules

ANADA 200-268, Approved by FDA

AmTech[®]
Group, Inc.

Each capsule contains:
Clindamycin hydrochloride
equivalent to clindamycin,
150 mg.

Keep container tightly closed.

Store at controlled room
temperature 20°-25°C (68°-77°F)

**KEEP OUT OF REACH
OF CHILDREN**

Manufactured by
Phoenix Scientific, Inc.
St. Joseph, MO 64503

801024

Rev. 11-02

OPEN
HERE



Approved for use in dogs.

Recommended dosage:

For therapy of wounds, abscesses and dental infections.
1-6 capsules for each 120 pounds body weight every 12 hours.

5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100

For therapy of osteomyelitis.
2-6 capsules for each 120 pounds body weight every 12 hours.

See package insert for complete product information.

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

Lot No.

Exp. Date

NDC 59130-763-34

**CLINDAMYCIN
HYDROCHLORIDE
CAPSULES**

Antibiotic

300 mg

Equivalent to 300 mg Clindamycin

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

FOR ANIMAL USE ONLY

Contains 100 Capsules

ANADA 200-208, Approved by FDA

AmTech
Group, Inc.

Each capsule contains:
Clindamycin hydrochloride
equivalent to clindamycin,
300 mg.

OPEN
HERE



Keep container tightly closed.

Store at controlled room
temperature 20°-25°C (68°-77°F)

**KEEP OUT OF REACH
OF CHILDREN**

Manufactured by
Phoenix Scientific, Inc.
St. Joseph, MO 64503

801037

Iss. 3-03

7

6



FOR ANIMAL USE ONLY
Contains 10 x 10 Capsules
ANADA 200-298, Approved by FDA

CAUTION: Federal law restricts this drug to use
by or on the order of a licensed veterinarian.

Antibiotic
Equivalent to 300 mg Clindamycin

300 mg

CLINDAMYCIN
HYDROCHLORIDE
CAPSULES

NDC 59130-763-42

Top

Each capsule contains:

Clindamycin hydrochloride equivalent
to clindamycin, 300 mg.

Approved for use in dogs.

Recommended dosage:

For therapy of wounds, abscesses and dental infections.
1-6 capsules for each 120 pounds body weight every
12 hours.

For therapy of osteomyelitis, 2-6 capsules for each
120 pounds body weight every 12 hours.

See package insert for complete product information.

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

Store at controlled room temperature 20°-25°C (68°-77°F)

Left panel

CLINDAMYCIN HYDROCHLORIDE CAPSULES ENVELOPE

FRONT VIEW

**CLINDAMYCIN
HYDROCHLORIDE
CAPSULES**

Patient Name: _____

Dosage: _____

25 mg
75 mg
150 mg
300 mg

BACK VIEW

How do I give my pet a pill?

Several methods can be used to make sure your pet gets the medication he needs. Try different approaches to see which works best.

- Gently open the mouth by placing your hand across the muzzle and pressing your forefinger and thumb against the jaws, behind the canine teeth. Place the pill as far back on the tongue as possible and then hold the jaws closed while you gently stroke the throat using a downward motion to encourage swallowing.
- Hide the pill inside a piece of cheese or rolled inside a piece of soft bread.
- Crush the pill and add it to food. Remember, with this method, there is always a danger that the full dose may not be taken. Use a small amount of food and try to ensure that the food is eaten.

Envelope size 3-1/8 x 5-1/2

ANADA 200-298, Approved by FDA



CLINDAMYCIN HYDROCHLORIDE CAPSULES

DESCRIPTION: Clindamycin Hydrochloride Capsules 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*.

CLINDAMYCIN HYDROCHLORIDE CAPSULES:

25 mg Capsule, each yellow and colorless capsule contains clindamycin hydrochloride equivalent to 25 mg of clindamycin.

75 mg Capsule, each green and colorless capsule contains clindamycin hydrochloride equivalent to 75 mg of clindamycin.

150 mg Capsule, each blue and colorless capsule contains clindamycin hydrochloride equivalent to 150 mg of clindamycin.

300 mg Capsule, each turquoise and colorless capsule contains clindamycin hydrochloride equivalent to 300 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.

1

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 ($\mu\text{g/mL}$) from Diagnostic Laboratory Survey Data Evaluating Canine Pathogens in the U.S. during 1998-99¹

Organism	Number of Isolates	MIC ₅₀	MIC ₈₅	MIC ₉₀	Range
Soft Tissue/Wound ²					
<i>Staphylococcus aureus</i> :	17	0.5	0.5	≥ 4.0	0.25- ≥ 4.0
<i>Staphylococcus intermedius</i>	28	0.25	0.5	≥ 4.0	0.125- ≥ 4.0
<i>Staphylococcus</i> spp.	18	0.5	0.5	≥ 4.0	0.25- ≥ 4.0
Beta-hemolytic streptococci	46	0.5	0.5	≥ 4.0	0.25- ≥ 4.0
<i>Streptococcus</i> spp.	11	0.5	≥ 4.0	≥ 4.0	0.25- ≥ 4.0

2

INDICATIONS Clindamycin Hydrochloride Capsules 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 *Staphylococcus 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

Clindamycin Hydrochloride Capsules 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.

6

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 Clindamycin Hydrochloride Capsules 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, Clindamycin Hydrochloride Capsules should be used with caution in animals receiving such agents.

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

7

ADVERSE REACTIONS

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

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

Capsules:

Clindamycin Hydrochloride 25 mg, administer 1-6 capsules every 12 hours for each 10 pounds of body weight.

Clindamycin Hydrochloride 75 mg, administer 1-6 capsules every 12 hours for each 30 pounds of body weight.

Clindamycin Hydrochloride 150 mg, administer 1-6 capsules every 12 hours for each 60 pounds of body weight.

Clindamycin Hydrochloride 300 mg, administer 1-6 capsules every 12 hours for each 120 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

Capsules:

Clindamycin Hydrochloride 25 mg, administer 2-6 capsules every 12 hours for each 10 pounds of body weight.

Clindamycin Hydrochloride 75 mg, administer 2-6 capsules every 12 hours for each 30 pounds of body weight.

Clindamycin Hydrochloride 150 mg, administer 2-6 capsules every 12 hours for each 60 pounds of body weight.

Clindamycin Hydrochloride 300 mg, administer 2-6 capsules every 12 hours for each 120 pounds of body weight.

HOW SUPPLIED

Clindamycin Hydrochloride Capsules are available as:

25 mg capsules supplied in bottles of 600 or blister packages of 100

75 mg capsules supplied in bottles of 200 or blister packages of 100

150 mg capsules supplied in bottles of 100 or blister packages of 100

300 mg capsules supplied in bottles of 100 or blister packages of 100

Store at controlled room temperature 20°-25°C (68°-77°F).

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

Manufactured by
Phoenix Scientific, Inc.
St. Joseph, MO 64503

801022
801023
801024
801037

Rev 5-03

Organism	Number of Isolates	MIC ₅₀	MIC ₈₅	MIC ₉₀	Range
Osteomyelitis/Bone¹					
<i>Staphylococcus aureus</i>	20	0.5	0.5	0.5	0.5 ⁴
<i>Staphylococcus intermedius</i>	15	0.5	≥4.0	≥4.0	0.25-≥4.0
<i>Staphylococcus spp.</i>	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
<i>Streptococcus spp.</i>	21	≥4.0	≥4.0	≥4.0	0.25-≥4.0
Dermal/Skin⁵					
<i>Staphylococcus aureus</i>	25	0.5	≥4.0	≥4.0	0.25-≥4.0
<i>Staphylococcus intermedius</i>	48	0.5	≥4.0	≥4.0	0.125-≥4.0
<i>Staphylococcus spp.</i>	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

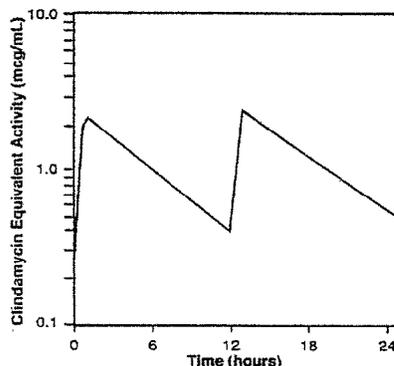
- The correlation between the *in vitro* susceptibility data and clinical response has not been determined.
- Soft Tissue/Wound: includes samples labeled wound, abscess, aspirate, exudates, draining tract, lesion, and mass
- Osteomyelitis/Bone: includes samples labeled bone, fracture, joint, tendon
-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

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
Capsules 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 product 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.