

**LONCOR 300- florfenicol injection, solution**  
**Zoetis Inc.**

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**Loncor™ 300**

**Loncor™ 300**  
**(florfenicol)**  
**300 mg/mL Injectable Solution**

**For intramuscular and subcutaneous use in beef and non-lactating dairy cattle only**

**Not for use in female dairy cattle 20 months of age or older or in calves to be processed for veal**

**CAUTION**

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

**DESCRIPTION**

LONCOR 300 Injectable Solution is a solution of the synthetic antibiotic florfenicol. Each milliliter of sterile LONCOR 300 contains 300 mg of florfenicol, 250 mg *N*-methyl-2-pyrrolidone (NMP), 150 mg propylene glycol, and polyethylene glycol qs. The chemical name for florfenicol is *2,2-Dichloro-N-[1-(fluoromethyl)-2-hydroxy-2-[4-(methylsulfonyl)phenyl]ethyl]acetamide*.

**INDICATIONS**

LONCOR 300 is indicated for treatment of bovine respiratory disease (BRD) associated with *Mannheimia haemolytica*, *Pasteurella multocida*, and *Histophilus somni*, and for the treatment of bovine interdigital phlegmon (foot rot, acute interdigital necrobacillosis, infectious pododermatitis) associated with *Fusobacterium necrophorum* and *Bacteroides melanogenicus*. Also, it is indicated for the control of respiratory disease in cattle at high risk of developing BRD associated with *Mannheimia haemolytica*, *Pasteurella multocida*, and *Histophilus somni*.

**DOSAGE AND ADMINISTRATION**

**For treatment of bovine respiratory disease (BRD) and bovine interdigital phlegmon (foot rot):** LONCOR 300 should be administered by intramuscular injection to cattle at a dose rate of 20 mg/kg body weight (3 mL/100 lbs). A second dose should be administered 48 hours later. Alternatively, LONCOR 300 can be administered by a single subcutaneous (SC) injection to cattle at a dose rate of 40 mg/kg body weight (6 mL/100 lbs). Do not administer more than 10 mL at each site. The injection should be given only in the neck.

NOTE: Intramuscular injection may result in local tissue reaction which persists beyond

28 days. This may result in trim loss of edible tissue at slaughter. Tissue reaction at injection sites other than the neck is likely to be more severe.

**For control of respiratory disease in cattle at high risk of developing BRD:**

LONCOR 300 should be administered by a single subcutaneous injection to cattle at a dose rate of 40 mg/kg body weight (6 mL/100 lbs). Do not administer more than 10 mL at each site. The injection should be given only in the neck.

**LONCOR 300 DOSAGE GUIDE**

<b>ANIMAL WEIGHT (lbs)</b>	<b>IM LONCOR 300 DOSAGE 3.0 mL/100 lb Body Weight (mL)</b>	<b>SC LONCOR 300 DOSAGE 6.0 mL/100 lb Body Weight (mL)</b>
<b>100</b>	<b>3.0</b>	<b>6.0</b>
<b>200</b>	<b>6.0</b>	<b>12.0</b>
<b>300</b>	<b>9.0</b>	<b>18.0</b>
<b>400</b>	<b>12.0</b>	<b>24.0</b>
<b>500</b>	<b>15.0</b>	<b>30.0</b>
<b>600</b>	<b>18.0</b>	<b>36.0</b>
<b>700</b>	<b>21.0</b>	<b>42.0</b>
<b>800</b>	<b>24.0</b>	<b>48.0</b>
<b>900</b>	<b>27.0</b>	<b>54.0</b>
<b>1000</b>	<b>30.0</b>	<b>60.0</b>

Clinical improvement should be evident in most treated subjects within 24 hours of initiation of treatment. If a positive response is not noted within 72 hours of initiation of treatment, the diagnosis should be re-evaluated.

**RECOMMENDED INJECTION LOCATION**



Do not inject more than 10 mL per injection site.

**CONTRAINDICATIONS**

Do not use in animals that have shown hypersensitivity to florfenicol.

**USER SAFETY WARNINGS: NOT FOR HUMAN USE. KEEP OUT OF REACH OF CHILDREN.**

This product contains materials that can be irritating to skin and eyes. Avoid direct contact with skin, eyes, and clothing. In case of accidental eye exposure, flush with water for 15 minutes. In case of accidental skin exposure, wash with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. Accidental injection of this product may cause local irritation. Consult a physician immediately. Reproductive and developmental toxicities have been reported in laboratory animals following high, repeated exposures to *N*-methyl-2-pyrrolidone (NMP). Pregnant women should wear gloves and exercise caution or avoid handling this product. The Safety Data Sheet (SDS) contains more detailed occupational safety information.

**CONTACT INFORMATION**

To report suspected adverse drug events, for technical assistance or to obtain a copy of the SDS, contact Zoetis at 1-888-963-8471. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or [www.fda.gov/reportanimalae](http://www.fda.gov/reportanimalae)

**PRECAUTIONS**

Not for use in animals intended for breeding purposes. The effects of florfenicol on bovine reproductive performance, pregnancy, and lactation have not been determined. Toxicity studies in dogs, rats, and mice have associated the use of florfenicol with testicular degeneration and atrophy. Intramuscular injection may result in local tissue reaction which persists beyond 28 days. This may result in trim loss of edible tissue at slaughter. Tissue reaction at injection sites other than the neck is likely to be more severe.

**RESIDUE WARNINGS**

Animals intended for human consumption must not be slaughtered within 28 days of the last intramuscular treatment. Animals intended for human consumption must not be slaughtered within 38 days of subcutaneous treatment. This product is not approved for use in female dairy cattle 20 months of age or older, including dry dairy cows. Use in these cattle may cause drug residues in milk and/or in calves born to these cows. A withdrawal period has not been established in pre-ruminating calves. Do not use in calves to be processed for veal.

**ADVERSE REACTIONS**

Inappetence, decreased water consumption, or diarrhea may occur transiently following treatment.

## CLINICAL PHARMACOLOGY

The pharmacokinetic disposition of florfenicol was evaluated in feeder calves following single intramuscular (IM) administration at the recommended dose of 20 mg/kg body weight. Florfenicol was also administered intravenously (IV) to the same cattle in order to calculate the volume of distribution, clearance, and percent bioavailability<sup>1</sup> (Table 1).

**TABLE 1. Pharmacokinetic Parameter Values for Florfenicol Following IM Administration of 20 mg/kg Body Weight to Feeder Calves (n=10).**

Parameter	Median	Range
C <sub>max</sub> (µg/mL)	3.07*	1.43 - 5.60
T <sub>max</sub> (hr)	3.33	0.75 - 8.00
T <sub>1/2</sub> (hr)	18.3**	8.30 - 44.0
AUC (µg•min/mL)	4242	3200 - 6250
Bioavailability (%)	78.5	59.3 - 106
Vd <sub>ss</sub> (L/kg)***	0.77	0.68 - 0.85
Cl <sub>t</sub> (mL/min/kg)***	3.75	3.17 - 4.31

\* harmonic mean

\*\* mean value

\*\*\* following IV administration

C<sub>max</sub> Maximum serum concentration

T<sub>max</sub> Time at which C<sub>max</sub> is observed

T<sub>1/2</sub> Biological half-life

AUC Area under the curve

Vd<sub>ss</sub> Volume of distribution at steady state

Cl<sub>t</sub> Total body clearance

Florfenicol was detectable in the serum of most animals through 60 hours after intramuscular administration with a mean concentration of 0.19 µg/mL. The protein binding of florfenicol was 12.7%, 13.2%, and 18.3% at serum concentrations of 0.5, 3.0, and 16.0 µg/mL, respectively.

## MICROBIOLOGY

Florfenicol is a synthetic, broad-spectrum antibiotic active against many Gram-negative and Gram-positive bacteria isolated from domestic animals. It acts by binding to the 50S ribosomal subunit and inhibiting bacterial protein synthesis. Florfenicol is generally considered a bacteriostatic drug, but exhibits bactericidal activity against certain bacterial species. *In vitro* studies demonstrate that florfenicol is active against the bovine respiratory disease (BRD) pathogens *Mannheimia haemolytica*, *Pasteurella multocida*, and *Histophilus somni*, and that florfenicol exhibits bactericidal activity against strains of *M. haemolytica* and *H. somni*. Clinical studies confirm the efficacy of florfenicol against BRD as well as against commonly isolated bacterial pathogens in bovine interdigital phlegmon including *Fusobacterium necrophorum* and *Bacteroides melaninogenicus*.

The minimum inhibitory concentrations (MICs) of florfenicol for BRD organisms were determined using isolates obtained from natural infections from 1990 to 1993. The MICs for interdigital phlegmon organisms were determined using isolates obtained from natural infections from 1973 to 1997 (Table 2).

**TABLE 2. Florfenicol Minimum Inhibitory Concentration (MIC) Values\* of Indicated Pathogens Isolated From Natural Infections of Cattle.**

<b>Indicated pathogens</b>	<b>Year of isolation</b>	<b>Isolate Numbers</b>	<b>MIC<sub>50</sub>** (µg/mL)</b>	<b>MIC<sub>90</sub>** (µg/mL)</b>
<i>Mannheimia haemolytica</i>	1990 to 1993	398	0.5	1
<i>Pasteurella multocida</i>	1990 to 1993	350	0.5	0.5
<i>Histophilus somni</i>	1990 to 1993	66	0.25	0.5
<i>Fusobacterium necrophorum</i>	1973 to 1997	33	0.25	0.25
<i>Bacteroides melaninogenicus</i>	1973 to 1997	20	0.25	0.25

\* The correlation between the *in vitro* susceptibility data and clinical effectiveness is unknown.

\*\* The lowest MIC to encompass 50% and 90% of the most susceptible isolates, respectively.

## **ANIMAL SAFETY**

A 10X safety study was conducted in feeder calves. Two intramuscular injections of 200 mg/kg were administered at a 48-hour interval. The calves were monitored for 14 days after the second dose. Marked anorexia, decreased water consumption, decreased body weight, and increased serum enzymes were observed following dose administration. These effects resolved by the end of the study.

A 1X, 3X, and 5X (20, 60, and 100 mg/kg) safety study was conducted in feeder calves for 3X the duration of treatment (6 injections at 48-hour intervals). Slight decrease in feed and water consumption was observed in the 1X dose group. Decreased feed and water consumption, body weight, urine pH, and increased serum enzymes, were observed in the 3X and 5X dose groups. Depression, soft stool consistency, and dehydration were also observed in some animals (most frequently at the 3X and 5X dose levels), primarily near the end of dosing.

A 43-day controlled study was conducted in healthy cattle to evaluate effects of florfenicol administered at the recommended dose on feed consumption. Although a transient decrease in feed consumption was observed, florfenicol administration had no long-term effect on body weight, rate of gain, or feed consumption.

## **STORAGE INFORMATION**

Store below 30°C (86°F). Protect from light when not in use.

Once opened, use contents within 6 months.

The solution is light yellow to straw colored. Color does not affect potency.

## **HOW SUPPLIED**

Loncor 300 is packaged in 250 mL and 500 mL glass sterile multiple-dose vials.

## REFERENCE

1. Lobell RD, Varma KJ, et al. Pharmacokinetics of florfenicol following intravenous and intramuscular doses to cattle. J Vet Pharmacol Therap. 1994; 17:253-258.

Product of China

51955700

Approved by FDA under ANADA # 200-582

Revised: May 2024

Manufactured for:  
Zoetis Inc.  
Kalamazoo, MI 49007

## Principal Display Panel

51955600

**Loncor™ 300**  
(florfenicol)

Multiple-Dose Vial  
Sterile

300 mg/mL Injectable Solution

250 mL

**zoetis**

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**IMPORTANT:** See Product Information insert for complete directions and warnings before using.

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

**DESCRIPTION:** Each milliliter contains 300 mg of florfenicol, 250 mg N-methyl-2-pyrrolidone (NMP), 150 mg propylene glycol, and polyethylene glycol qs.

Manufactured for:  
Zoetis Inc.  
Kalamazoo, MI 49007  
Product of China Approved by FDA under ANADA # 200-582

## LONCOR 300

florfenicol injection, solution

### Product Information

<b>Product Type</b>	PRESCRIPTION ANIMAL DRUG	<b>Item Code (Source)</b>	NDC:54771-7318
<b>Route of Administration</b>	INTRAMUSCULAR, SUBCUTANEOUS		

**Active Ingredient/Active Moiety**

Ingredient Name	Basis of Strength	Strength
FLORFENICOL (UNII: 9J97307Y1H) (FLORFENICOL - UNII:9J97307Y1H)	FLORFENICOL	300 mg in 1 mL

**Packaging**

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:54771-7318-1	250 mL in 1 VIAL		
2	NDC:54771-7318-2	500 mL in 1 VIAL		

**Marketing Information**

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANADA	ANADA200582	09/30/2024	

**Labeler** - Zoetis Inc. (828851555)

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Zoetis Inc.