BIO-MYCIN® 200
(oxytetracycline injection)

THE GENTLE INJECTABLE.

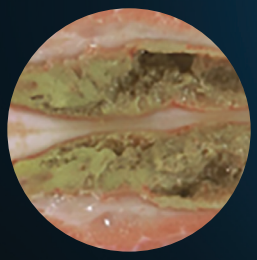
TOP REASONS TO CHOOSE THE SMOOTH INJECTION

1 FLEXIBLE ANTIBIOTIC FOR TREATING A RANGE OF DISEASES

Bio-Mycin® 200 (oxytetracycline injection) treats a range of diseases including pinkeye, pneumonia, scours, acute metritis, foot rot, diphtheria and leptospirosis in lactating and non-lactating dairy cattle and all beef cattle.

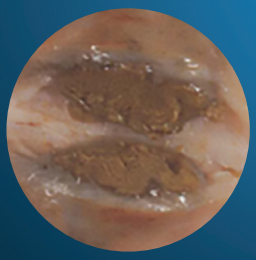
2 THE ONLY INJECTABLE PRODUCT FORMULATED WITH SELECT CARRIER TO MINIMIZE LESIONS

Select Carrier™ is a patented vehicle that delivers oxytetracycline to the bloodstream, minimizing costly injection-site lesions. In a head-to-head study, Bio-Mycin® 200 (oxytetracycline injection) showed reduced tissue damage in cattle after injection when compared to Nuflor® (florfenicol), Micotil (tilmicosin injection), Liquamycin® LA-200® (oxytetracycline injectable solution) or Noromycin® 300 LA (oxytetracycline injection).[1]



Noromycin® 300 LA

Injection-site reaction is moderate to severe and unresolved or still active.



Liquamycin® LA-200® or generics

Injection-site reaction is mild to moderate.

Bio-Mycin® 200

Injection-site reaction has resolved.

3 WORKS HARD AND LONG

Compared to competitors, BIO-MYCIN 200 antibiotic showed higher concentrations and a longer duration of antibiotic levels in tissues,[2] providing the immediate impact and long-lasting treatment animals need to recover.

4 ECONOMICAL SOLUTION FOR AN EXPENSIVE PROBLEM

BIO-MYCIN 200 antibiotic is superior to competitors in minimizing tissue damage requiring lesion trimming, which can cost up to $40 per head.[3]

IMPORTANT SAFETY INFORMATION: Discontinue treatment at least 28 days prior to slaughter. Milk taken from animals during treatment and for 96 hours after the last treatment must not be used for food. Rapid intravenous administration may result in animal collapse. Product should be administered intravenously slowly over a period of at least 5 minutes.

[1] Dowling PM. Evaluation of subcutaneous and intramuscular injection sites of antimicrobials in calves. Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, SK. 1998;1–40.
[2] Data on file at Boehringer Ingelheim. Study Number 552-0140-97B-001.
[3] Hilton WM. Beef quality assurance injection sites and techniques. Purdue University Extension, School of Veterinary Medicine. 2005. Available at https://www.extension.purdue.edu/extmedia/VY/VY-60-W.pdf. Accessed Sept. 11, 2023.

Cattle First. Boehringer Ingelheim

Approved by FDA under ANADA # 200-008

Bio-Mycin® 200
(oxytetracycline injection)

Antibiotic

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

Each mL contains 200 mg oxytetracycline.

For the treatment of disease in beef cattle, dairy cattle and swine.

For animal use only

Read entire insert carefully before using this product.

BIO-MYCIN 200 is a sterile, ready-to-use solution of the broad spectrum antibiotic oxytetracycline by injection. Oxytetracycline injection administered to cattle or swine for the treatment of bacterial pneumonia at a dosage of 9 mg of oxytetracycline per lb of body weight has been demonstrated in clinical trials to be as effective as 2 or 3 repeated, daily treatments at 3-5 mg/lb of body weight. Each mL contains 200 mg of oxytetracycline; magnesium oxide 1.7% w/v; sodium formaldehyde sulfoxylate 0.5% w/v; polyethylene glycol 400 30% w/v; monoethanolamine to adjust pH; water for injection USP qs. The antibiotic activity of oxytetracycline is not appreciably diminished in the presence of body fluids, serum or exudates.

Caution: When administered to cattle, muscle discoloration may necessitate trimming of the injection site(s) and surrounding tissues during the dressing procedure.

Warning: Discontinue treatment at least 28 days prior to slaughter of cattle and swine. Milk taken from animals during treatment and for 96 hours after the last treatment must not be used for food. Rapid intravenous administration may result in animal collapse. Oxytetracycline should be administered intravenously slowly over a period of at least 5 minutes.

Precautions: Exceeding the highest recommended dosage level of drug per pound of body weight per day, administering more than the recommended number of treatments and/or exceeding 10 mL intramuscularly or subcutaneously per injection site in adult beef and dairy cattle may result in antibiotic residues beyond the withdrawal period.

At the first sign of any adverse reaction, discontinue use of product and seek the advice of your veterinarian. Some of the reactions may be attributed either to anaphylaxis (an allergic reaction) or to cardiovascular collapse of unknown cause.

Shortly after injection treated animals may have transient hemoglobinuria resulting in darkened urine.

As with all antibiotic preparations, use of this drug may result in overgrowth of nonsusceptible organisms, including fungi. A lack of response by the treated animal, or the development of new signs, may suggest that an overgrowth of nonsusceptible organisms has occurred. If any of these conditions occur, consult your veterinarian.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, it is advisable to avoid giving BIO-MYCIN 200 in conjunction with penicillin.

Adverse Reactions: Reports of adverse reactions associated with oxytetracycline administration include injection site swelling, restlessness, ataxia, trembling, swelling of eyelids, ears, muzzle, anus and vulva (or scrotum and sheath in males), respiratory abnormalities (labored breathing), frothing at the mouth, collapse and possibly death. Some of these reactions may be attributed either to anaphylaxis (an allergic reaction) or to cardiovascular collapse of unknown cause.

Storage: Store at controlled room temperature 15°-25°C (59°-77°F). Exposure to colder temperatures may cause cloudiness. Gently warm the product to restore clarity. **Use within 12 months of first puncture.** Handle aseptically.

Care of Sick Animals: The use of antibiotics in the management of diseases is based on an accurate diagnosis and an adequate course of treatment. When properly used in the treatment of diseases caused by oxytetracycline susceptible organisms most animals that have been treated with oxytetracycline injection show a noticeable improvement within 24 to 48 hours.

Indications: BIO-MYCIN 200 is intended for use in the treatment of the following diseases in beef cattle, dairy cattle and swine when due to oxytetracycline-susceptible organisms:

Cattle: In cattle, BIO-MYCIN 200 is indicated in the treatment of pneumonia and shipping fever complex associated with *Pasteurella* spp. and *Haemophilus* spp.; infectious bovine keratoconjunctivitis (pinkeye) caused by *Moraxella bovis*; foot-rot and diphtheria caused by *Fusobacterium necrophorum*; bacterial enteritis (scours) caused by *Escherichia coli*; wooden tongue caused by *Actinobacillus lignieresii*; leptospirosis caused by *Leptospira pomona*; and wound infections and acute metritis caused by strains of staphylococci and streptococci organisms sensitive to oxytetracycline.

Dosage: Cattle: BIO-MYCIN 200 is to be administered by intramuscular, subcutaneous, or intravenous injection. Intramuscular administration is not recommended according to Beef Quality Assurance Guidelines.

A single dosage of 9 milligrams of BIO-MYCIN 200 per pound of body weight administered intramuscularly or subcutaneously is recommended in the treatment of the following conditions: 1) bacterial pneumonia caused by *Pasteurella* spp. (shipping fever) in calves and yearlings, where retreatment is impractical due to husbandry conditions, such as cattle on range, or where their repeated restraint is inadvisable; 2) infectious bovine keratoconjunctivitis (pinkeye) caused by *Moraxella bovis*.

Cattle Dosage Guide

At the first signs of pneumonia or pinkeye* administer a single dose of BIO-MYCIN 200 by intramuscular injection,** or subcutaneously according to the following weight categories.***

Animal weight (lb)	Number of mL or cc	Animal weight (lb)	Number of mL or cc	Animal weight (lb)	Number of mL or cc
100	4.5	500	22.5	900	40.5
200	9.0	600	27.0	1000	45.0
300	13.5	700	31.5	1100	49.5
400	18.0	800	36.0	1200	54.0

* See package insert for dosing instructions for other indicated diseases and full product

** Intramuscular administration is not recommended according to Beef Quality Assurance Guidelines.

*** Do not administer more than 10 mL at any one injection site (1–2 mL per site in small calves).

Discontinue treatment at least 28 days prior to slaughter of cattle. Milk taken from animals during treatment and for 96 hours after the last treatment must not be used for food.

BIO-MYCIN 200 can also be administered by intravenous, subcutaneous, or intramuscular injection at a level of 3 to 5 milligrams of oxytetracycline per pound of body weight per day. In the treatment of severe foot-rot and advanced cases of other indicated diseases, a dosage level of 5 milligrams per pound of body weight per day is recommended. Treatment should be continued 24 to 48 hours following remission of disease signs; however, not to exceed a total of four consecutive days. Consult your veterinarian if improvement is not noted within 24 to 48 hours of the beginning of treatment.

Directions for Use: BIO-MYCIN 200 is intended for use in the treatment of disease due to oxytetracycline susceptible organisms in beef cattle, dairy cattle and swine. A thoroughly cleaned, sterile needle and syringe should be used for each injection (needles and syringes may be sterilized by boiling in water for 15 minutes). In cold weather, BIO-MYCIN 200 should be warmed to room temperature before administration to animals. Before withdrawing the solution from the bottle, disinfect the rubber cap on the bottle with a suitable disinfectant, such as 70% alcohol. The injection site should be similarly cleaned with the disinfectant. Needles of 16 to 18 gauge and 1 to 1½ inches long are adequate for intramuscular injections. Needles 2 to 3 inches are recommended for intravenous use.

Intramuscular Administration: Intramuscular injections should be made by directing the needle of suitable gauge and length into the fleshy part of a thick muscle in the neck region; avoid blood vessels and major nerves. Before injecting the solution, pull back gently on the plunger. If blood appears in the syringe, a blood vessel has been entered; withdraw the needle and select a different site. In cattle, intramuscular administration is not recommended according to Beef Quality Assurance Guidelines.

No more than 10 mL should be injected intramuscularly at any one site in adult beef cattle and dairy cattle, and not more than 5 mL per site in adult swine; rotate injection sites for each succeeding treatment. The volume administered per injection site should be reduced according to age and body size so that 1 to 2 mL per site is injected in small calves.

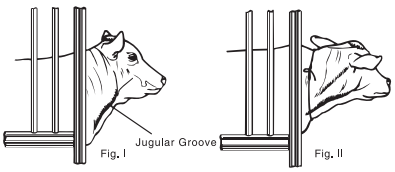
Subcutaneous Administration: Subcutaneous injections in beef cattle and dairy cattle should be made by directing the needle of suitable gauge and length through the loose folds of the neck skin in front of the shoulder. Care should be taken to ensure that the tip of the needle has penetrated the skin but is not lodged in muscle. Before injecting the solution, pull back gently on the plunger. If blood appears in the syringe, a blood vessel has been entered; withdraw the needle and select a different site. The solution should be injected slowly into the area between the skin and muscles.

No more than 10 mL should be injected subcutaneously at any one site in adult beef cattle and dairy cattle; rotate injection sites for each succeeding treatment. The volume administered per injection site should be reduced according to age and body size so that 1 to 2 mL per site is injected in small calves.

Intravenous Administration: BIO-MYCIN 200 (oxytetracycline injection) may be administered intravenously to beef cattle and dairy cattle. As with all highly concentrated materials, BIO-MYCIN 200 should be administered *slowly* by the intravenous route.

Preparation of the Animal for Injection:

1. Approximate location of vein. The jugular vein runs in the jugular groove on each side of the neck from the angle of the jaw to just above the brisket and slightly above and to the side of the windpipe. (See Fig. I).
2. Restraint. A stanchion or chute is ideal for restraining the animal. With a halter, rope, or cattle leader (nose tongs), pull the animal's head around the side of the stanchion, cattle chute, or post in such a manner to form a bow in the neck (See Fig. II), then snub the head securely to prevent movement. By forming the bow in the neck, the outside curvature of the bow tends to expose the jugular vein and make it easily accessible. **Caution:** Avoid restraining the animal with a tight rope or halter around the throat or upper neck which might impede blood flow. Animals that are down present no problem as far as restraint is concerned.
3. Clip hair in area where injection is to be made (over the vein in the upper third of the neck). Clean and disinfect the skin with alcohol or other suitable antiseptic.



Entering the Vein and Making the Injection:

1. Raise the vein. This is accomplished by tying the choke rope tightly around the neck close to the shoulder. The rope should be tied in such a way that it will not come loose and so that it can be untied quickly by pulling the loose end (See Fig. II). In thick-necked animals, a block of wood placed in the jugular groove between the rope and the hide will help considerably in applying the desired pressure at the right point. The vein is a soft flexible tube through which the blood flows back to the heart. Under ordinary conditions, it cannot be seen or felt with the fingers. When the flow of blood is blocked at the base of the neck by the choke rope, the vein becomes enlarged and rigid because of the back pressure. If the choke rope is sufficiently tight, the vein stands out and can be easily seen and felt in thin-necked animals. As a further check in identifying the vein, tap it with the fingers in front of the choke rope. Pulsations that can be seen or felt with the fingers in front of the point being tapped will confirm the fact that the vein is properly distended. It is impossible to put the needle into the vein unless it is distended. Experienced operators are able to raise the vein simply by hand pressure, but the use of a choke rope is more certain.
2. Inserting the needle. This involves three distinct steps. First, insert the needle through the hide. Second, insert the needle into the vein. This may require two or three attempts before the vein is entered. The vein has a tendency to roll away from the point of the needle, especially if the needle is not sharp. The vein can be steadied with the thumb and finger of one hand. With the other hand, the needle point is placed directly over the vein, slanting it so that its direction is along the length of the vein, either toward the head or toward the heart. Properly positioned this way, a quick thrust of the needle will be followed by a spurt of blood through the needle, which indicates that the vein has been entered. Third, once in the vein, the needle should be inserted along the length of the vein all the way to the hub, exercising caution to see that the needle does not penetrate the opposite side of the vein. Continuous steady flow of blood through the needle indicates that the needle is still in the vein. If blood does not flow continuously, the needle is out of the vein (or clogged) and another attempt must be made. If difficulty is encountered, it may be advisable to use the vein on the other side of the neck.
3. While the needle is being placed in proper position in the vein, an assistant should get the medication ready so that the injection can be started without delay after the vein has been entered.
4. Making the injection. With the needle in position as indicated by continuous flow of blood, release the choke rope by a quick pull on the free end. This is essential–the medication cannot flow into the vein while it is blocked. Immediately connect the syringe containing BIO-MYCIN 200 to the needle and slowly depress the plunger. If there is resistance to depression of the plunger, this indicates that the needle has slipped out of the vein (or is clogged) and the procedure will have to be repeated. Watch for any swelling under the skin near the needle, which would indicate that the medication is not going into the vein. Should this occur, it is best to try the vein on the opposite side of the neck.
5. Removing the needle. When injection is complete, remove needle with straight pull. Then apply pressure over area of injection momentarily to control any bleeding through needle puncture, using cotton soaked in alcohol or other suitable antiseptic.

How Supplied: BIO-MYCIN 200 is available in 100-mL, 250-mL, and 500-mL bottles containing 200 mg oxytetracycline per mL.
NDC 0010-4753-01 - 100 mL
NDC 0010-4753-02 - 250 mL
NDC 0010-4753-03 - 500 mL

Not For Human Use.

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Marketed by:
Boehringer Ingelheim Animal Health USA Inc. Duluth, GA 30096

TAKE TIME
OBSERVE LABEL DIRECTIONS

Boehringer Ingelheim