

DON'T LET PNEUMONIA GET IN THE WAY OF HER FUTURE.

1. Zactran[®] (gamithromycin) treats all major bacteria that cause pneumonia.

ZACTRAN is indicated for the treatment of bovine respiratory disease (BRD) associated with *Mannheimia haemolytica*, *Pasteurella multocida*, *Histophilus somni* and *Mycoplasma bovis*.¹

2. It provides the convenience of 10 days of therapy from a single injection.¹

ZACTRAN keeps working for 10 days, reducing the time and labor associated with repulls. With less handling, cattle experience less stress — so they can focus on gaining weight.

3. With ZACTRAN, you typically see improvement within 24 hours.[†]

In a study, cattle treated with ZACTRAN responded within 24 hours. Cattle had lower temperatures, were more alert and were breathing easier.²

4. Avoid multiple treatments with one cost-effective dose.

ZACTRAN is competitively priced, and a single dose goes a long way, providing 10 days of BRD treatment or control.

5. ZACTRAN reaches the site of infection in just 30 minutes.^{3††}

After you administer ZACTRAN, the broad-spectrum antibiotic rapidly reaches the site of infection — the lungs — where it kills bacteria and stops them from replicating.

ZACTRAN IMPORTANT SAFETY INFORMATION: For use in cattle only. Do not treat cattle within 35 days of slaughter. Because a discard time in milk has not been established, do not use in female dairy cattle 20 months of age or older, or in calves to be processed for veal. The effects of ZACTRAN on bovine reproductive performance, pregnancy and lactation have not been determined. Subcutaneous injection may cause a transient local tissue reaction in some cattle that may result in trim loss of edible tissues at slaughter. NOT FOR USE IN HUMANS. KEEP OUT OF REACH OF CHILDREN.



PUT BRD BEHIND YOU WITH ZACTRAN® (gamithromycin). AND KEEP MORE OF YOUR HARD-EARNED PROFITS.

ZACTRAN®
(gamithromycin)

150 mg/mL ANTIMICROBIAL

NADA 141-328, Approved by FDA

For subcutaneous injection 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 (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

READ ENTIRE BROCHURE CAREFULLY BEFORE USING THIS PRODUCT.

INDICATIONS

ZACTRAN is indicated for the treatment of bovine respiratory disease (BRD) associated with *Mannheimia haemolytica*, *Pasteurella multocida*, *Histophilus somni* and *Mycoplasma bovis* in beef and non-lactating dairy cattle. ZACTRAN is also indicated for the control of respiratory disease in beef and non-lactating dairy cattle at high risk of developing BRD associated with *Mannheimia haemolytica* and *Pasteurella multocida*.

CONTRAINDICATIONS

As with all drugs, the use of ZACTRAN is contraindicated in animals previously found to be hypersensitive to this drug.

WARNING: FOR USE IN CATTLE ONLY. NOT FOR USE IN HUMANS. KEEP THIS AND ALL DRUGS OUT OF REACH OF CHILDREN. NOT FOR USE IN CHICKENS OR TURKEYS.

The material safety data sheet (MSDS) contains more detailed occupational safety information. To report adverse effects, obtain an MSDS or for assistance, contact Merial at 1-888-637-4251.

RESIDUE WARNINGS: Do not treat cattle within 35 days of slaughter. Because a discard time in milk has not been established, do not use in female dairy cattle 20 months of age or older. A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal.

PRECAUTIONS

The effects of ZACTRAN on bovine reproductive performance, pregnancy, and lactation have not been determined. Subcutaneous injection of ZACTRAN may cause a transient local tissue reaction in some cattle that may result in trim loss of edible tissues at slaughter.

ADVERSE REACTIONS

Transient animal discomfort and mild to moderate injection site swelling may be seen in cattle treated with ZACTRAN.

EFFECTIVENESS

The effectiveness of ZACTRAN for the treatment of BRD associated with *Mannheimia haemolytica*, *Pasteurella multocida* and *Histophilus somni* was demonstrated in a field study conducted at four geographic locations in the United States. A total of 497 cattle exhibiting clinical signs of BRD were enrolled in the study. Cattle were administered ZACTRAN (6 mg/kg BW) or an equivalent volume of sterile saline as a subcutaneous injection once on Day 0. Cattle were observed daily for clinical signs of BRD and were evaluated for clinical success on Day 10. The percentage of successes in cattle treated with ZACTRAN (58%) was statistically significantly higher ($p < 0.05$) than the percentage of successes in the cattle treated with saline (19%).

The effectiveness of ZACTRAN for the treatment of BRD associated with *M. bovis* was demonstrated independently at two U.S. study sites. A total of 502 cattle exhibiting clinical signs of BRD were enrolled in the studies. Cattle were administered ZACTRAN (6 mg/kg BW) or an equivalent volume of sterile saline as a subcutaneous injection once on Day 0. At each site, the percentage of successes in cattle treated with ZACTRAN on Day 10 was statistically significantly higher than the percentage of successes in the cattle treated with saline (74.4% vs. 24% [$p < 0.001$], and 67.4% vs. 46.2% [$p = 0.002$]). In addition, in the group of calves treated with gamithromycin that were confirmed positive for *M. bovis* (pre-treatment nasopharyngeal swabs), there were more calves at each site (45 of 57 calves, and 5 of 6 calves) classified as successes than as failures.

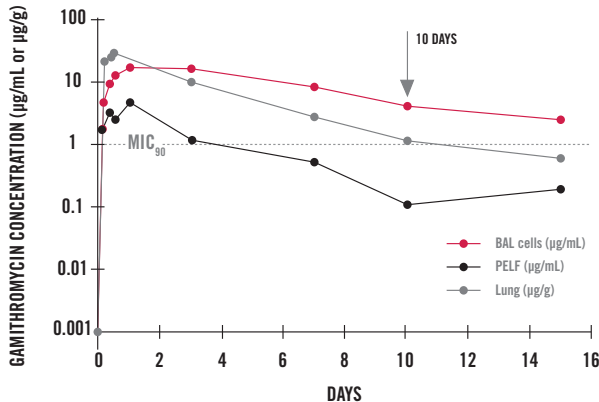
The effectiveness of ZACTRAN for the control of respiratory disease in cattle at high risk of developing BRD associated with *Mannheimia haemolytica* and *Pasteurella multocida* was demonstrated in two independent studies conducted in the United States. A total of 467 crossbred beef cattle at high risk of developing BRD were enrolled in the study. ZACTRAN (6 mg/kg BW) or an equivalent volume of sterile saline was administered as a single subcutaneous injection within one day after arrival. Cattle were observed daily for clinical signs of BRD and were evaluated for clinical success on Day 10 post-treatment. In each of the two studies, the percentage of successes in the cattle treated with ZACTRAN (86% and 78%) was statistically significantly higher ($p = 0.0019$ and $p = 0.0016$) than the percentage of successes in the cattle treated with saline (36% and 58%).

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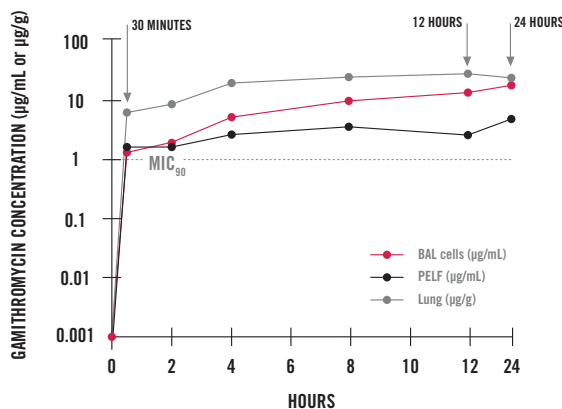
TEN DAYS OF THERAPY FROM A SINGLE DOSE¹

MIC₉₀ is the lowest concentration of the antibiotic at which 90% of the bacteria are inhibited. ZACTRAN remains above the MIC₉₀ for 10 days, giving cattle time to fight off the infection.

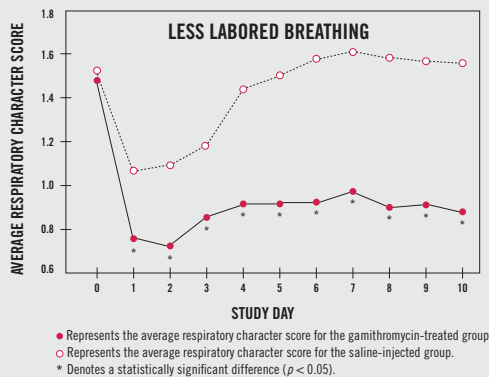
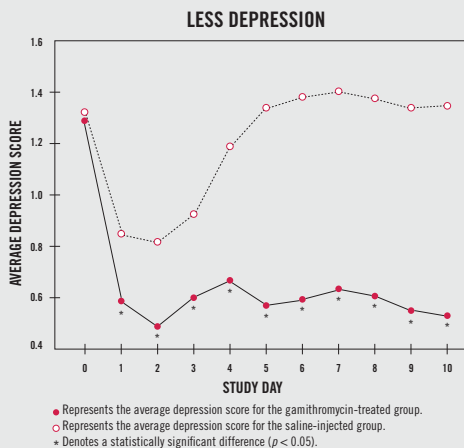


ZACTRAN REACHES THE LUNGS IN JUST 30 MINUTES^{2††}

ZACTRAN travels to the site of infection — the pulmonary epithelial lining fluid (PELF) that covers the lung surfaces — in just 30 minutes.^{3††}



TREATED CATTLE SHOWED VISIBLE IMPROVEMENT WITHIN 24 HOURS^{2†}



Cattle treated with ZACTRAN were less depressed, had less labored breathing and lower temperatures than untreated cattle.²

To put the power of ZACTRAN to work for you, talk to your veterinarian or Boehringer Ingelheim representative, or visit ZACTRAN.com.

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¹ A small percentage of cattle may have already suffered lung damage, and may be too far gone or will require a little longer to turn around.
^{††} Clinical relevance has not been determined.

¹ ZACTRAN product label.
² Giguere S, Huang R, Malinski TJ, et al. Disposition of gamithromycin in plasma, pulmonary epithelial lining fluid, bronchoalveolar cells and lung tissue in cattle. *Am J Vet Res* 2011;72(3):326-330.
³ Sifferman RL, Wolff WA, Holste JE, et al. Field efficacy evaluation of gamithromycin for treatment of bovine respiratory disease in cattle at feedlots. *Intern J Appl Res Vet Med* 2011;9(2):171-180.
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