

Hymatil 300mg/ml

Injectable solution for cattle and sheep

Tilmicosin

Kick pneumomia

A single shot to get rid of pneumonia



Composition: Each ml contains: Active substance: Tilmicosin, 300 mg. Excipient: Propylene glycol, 250 mg.

Species of destination: Cattle and sheep.

Indications: Cattle: Treatment of bovine respiratory disease associated with *Mannheimia haemolytica* and *Pasteurella multocida*. Treatment of interdigital necrobacillosis. Sheep: Treatment of respiratory tract infections caused by *Mannheimia haemolytica* and *Pasteurella multocida*. Treatment of foot rot in sheep caused by *Dichelobacter nodosus* and *Fusobacterium necrophorum*. Treatment of acute ovine mastitis caused by *Staphylococcus aureus* and *Mycoplasma agalactiae*.

Posology: For subcutaneous injection only. Use 10 mg tilmicosin per kg body weight (corresponding to 1 ml Hymatil per 30 kg body weight).

Contraindications: Do not administer intravenously nor intramuscularly. Do not administer to lambs weighing less than 15 kg. Do not administer to primates, pigs, horses, donkeys and goats.

Adverse reactions: Occasionally, a soft diffuse swelling may occur at the injection site but this disappears within five to eight days. In rare cases recumbency, incoordination and convulsions have been observed. Deaths of cattle have been observed following a single intravenous dose of 5 mg/kg body weight, and following the subcutaneous injection of doses of 150 mg/kg body weight at 72 hour intervals. Sheep have died following a single intravenous injection of 7.5 mg/kg body weight. If you notice any serious effects or other effects not mentioned in this leaflet, please inform your veterinary surgeon.

Overdose: In cattle subcutaneous injections of 10, 30 and 50 mg/kg body weight, repeated three times with a 72 hours interval, did not cause death. As expected, oedema developed at the site of injection. The only lesion observed at autopsy was a necrosis of the myocardium in the group treated with 50 mg/kg body weight. Doses of 150 mg/kg body weight, administered subcutaneously with an interval of 72 hours caused death. Oedema at the site of injection was observed and at autopsy a light necrosis of the myocardium was the only lesion determined. Other symptoms observed were: difficulty in moving, reduced appetite and tachycardia. In sheep single injections (approximately 30 mg/kg body weight) may cause a slight increase of the rate of respiration. Higher doses (150 mg/kg body weight) caused ataxia, lethargy and the inability to raise the head. Deaths occurred after one single intravenous injection of 5 mg/kg body weight in cattle and 7.5 mg/kg body weight in sheep.

Withdrawal time:

Calves: Meat and offal: 70 days. Milk: 36 days. If the product is administered to cows during the dry period or to pregnant dairy heifers, milk should not be used for human consumption until 36 days after calving.

Sheep: Meat and offal: 42 days. Milk: 18 days. If the product is administered to ewes during the dry period or to pregnant ewes, milk should not be used for human consumption until 18 days after lambing.

Special precautions for use in animals: Sheep: The clinical trials did not demonstrate a bacteriological cure in sheep with acute mastitis caused by *Staphylococcus aureus* and *Mycoplasma agalactiae*. Do not administer to lambs weighing less than 15 kg since there is a risk of overdose toxicity. Accurate weighing of lambs is important to avoid overdose. The use of a 2 ml or smaller syringe will facilitate accurate dosing.

Special precautions to be taken by the person administering the veterinary medicinal product to animals: injection of this drug in humans can be fatal – exercise extreme caution to avoid accidental self injection and follow the administration instructions and indications precisely.

Special precautions for storage: Keep out of the sight and reach of children. Do not store above 30 °C. Keep the vial in the outer carton in order to protect from light. Do not freeze. Shelf-life after first opening the immediate packaging: 28 days. After withdrawal of the first dose, the product should not be stored above 25 °C.

Presentations: vials of 50, 100 and 250 ml.

References

- 1 R.A Smith and co. *Effects of tilmicosin or ceftiofur on health and performance of stressed stocker cattle*. (1993)
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- 3 F.J. Schumann, E.D. Janzen and J.J. McKinnon. *Prophylactic medication of feedlot calves with tilmicosin*. (1991)
- 4 R. Laven & A.H. Andrews. *Long-acting antibiotic formulations in the treatment of calf pneumonia: a comparative study of tilmicosin and oxytetracycline*. (1991)
- 5 Héctor S. Sumano López & Luis Ocampo Caballeros. *Farmacología Veterinaria*. 3rd edition. McGraw Hill. Page 284. (1997)
- 6 D.W. Morck and co. *Treatment of Experimentally Induced Pneumonic Pasteurellosis of Young Calves with Tilmicosin*. Can J Vet Res 61:187-192. (1997)
- 7 B. Scorneaux & T. R. Shryock. *Intracellular Accumulation, Subcellular Distributions and Efflux of Tilmicosin in Chicken Phagocytes*. Poultry Science 77:1510-1521.(1998).
- 8 Alex C. Chin and co. *Tilmicosin induces apoptosis in bovine peripheral neutrophils in the presence or in the absence of Pasteurella hamolytica and promotes neutrophil phagocytosis by macrophages*. (2009)
- 9 Fossler and co. *Pharmacologic mechanism for tilmicosin in the control of cattle pneumonia*. (1998)

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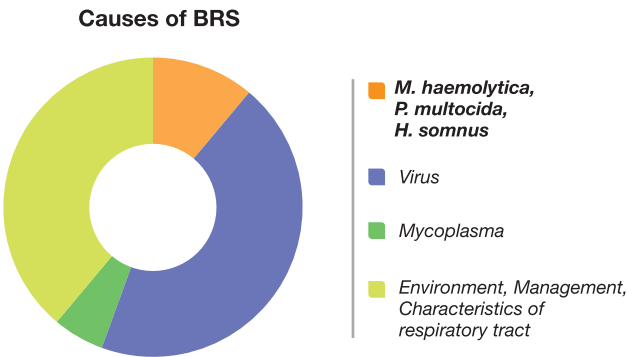


Hymatil 300mg/ml

Bovine Respiratory Syndrome

The Bovine Respiratory Syndrome (BRS) is the main clinical and economical problem in fattening calves. It occurs mainly in calves at arrival at the feedlot, especially:

- In unvaccinated calves
- After a long journey
- When mixing animals from different farms of origin



Bacteria are the principal pathological agents that cause mortality.

Symptoms	Economic consequences
Dyspnea, cough, nasal discharge, depressions, anorexia and high temperature	↓ ADG (Average Daily Gain) ↓ FCE (Feed Conversion Efficiency) ↑ Mortality ↑ Veterinary expenses ↑ Labour

The herd is in risk of suffering a BRS outbreak if:

- on arrival calves look poorly
- on arrival 15% or more animals are already affected by BRS
- if more than 1 in 5 calves show respiratory signs in any 24-hour period
- if, for 3 consecutive days, 5% or more calves show respiratory signs

Compared to other antibiotics commonly used to treat BRS, Tilmicosin shows:

Higher response rate and less retreatments¹

Lower mortality associated with BRS on arrival of calves at the farm²

Higher Weight and Average Daily Gain. Better Feed Conversion Efficiency³

Fewer treatments required⁴



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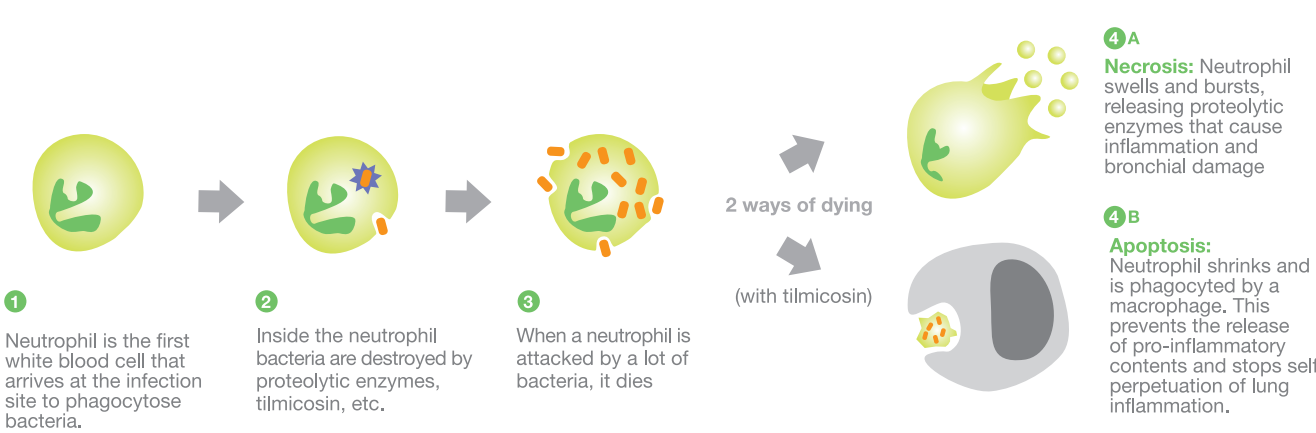
Hymatil®

Injectable solution of **tilmicosin 30% (300 mg/ml)**.

Tilmicosin has a broad antibacterial spectrum. Regarding respiratory processes in calves, it is mainly active against gram-positive germs, some gram-negative germs (*Pasteurella multocida*, *Mannheimia haemolytica*, *Histophilus somni*) and mycoplasma⁵.

Advantages	Benefits
“Single” long-acting treatment	That facilitates the daily work of the veterinarian with less stress for the animal
Rapid action ⁶	Useful in acute pathologies and when time is of the essence
It is accumulated within macrophages and neutrophils ⁷	It reaches the nidus of infection
Induction of Neutrophils apoptosis ^{8,9} This effect is not produced by other antibiotics under the same conditions (eg: penicillin, ceftiofur, oxytetracycline).	Contributes to the resolution of inflammation in the pneumonic process

Tilmicosin contributes to the resolution of inflammation in the pneumonic process by induction of Neutrophils apoptosis^{2,3}



Dose

Cattle and Sheep
1 ml/ 30 kg b.w.
Subcutaneous route only