



# TULINOVET® 100 MG/ML

Solution for injection for cattle, pigs and sheep

Contains per mL: Tulathromycine injectable 100 mg/mL

Stop the domino effect  
in one single shot



- ✓ Product of choice for respiratory diseases\*
- ✓ 1 single injection for **6 days** of activity
- ✓ Antibiotic with immunomodulatory and anti-inflammatory activity
- ✓ Stability and syringeability\*\*
- ✓ Molecule with great potential

# TULINOVET® 100 MG/ML

Solution for injection for cattle, pigs and sheep

Contains per mL: Tulathromycin injectable 100 mg/mL



## Indications for use, specifying the target species

### Cattle

• Treatment and metaphylaxis of bovine respiratory disease (BRD) and of infectious bovine keratoconjunctivitis (IBK) associated with germs susceptible to tulathromycin.

### Swine

• Treatment and metaphylaxis of swine respiratory disease (SRD) associated germs susceptible to tulathromycin. The product should only be used if pigs are expected to develop the disease within 2-3 days.

### Sheep

• Treatment of the early stages of infectious pododermatitis (footrot) associated with virulent *Dichelobacter nodosus* requiring systemic treatment.

For all species, the presence of the disease in the herd should be established before metaphylactic treatment.

## Special warnings for each target species

**Sheep:** Treatment of footrot should be undertaken along with other flock management tools.

Tulathromycin should only be given at an early stage of footrot.

## Adverse reactions

Administration of the product can cause very commonly transient local reactions at the injection site, dependent on species sensitivity (see SPC). They can persist for up to 30 days.

## Posology and administration route

species	cattle	swine	sheep
posology	one injection of 1 mL/40 kg of body weight (equivalent to 2.5 mg of tulathromycin / kg)		
site for injection	sub-cutaneous	intramuscular in the neck	
maximum volume at injection site	7.5 mL	2 mL	
withdrawal period (meat and offal)	22 days	13 days	16 days

In animals where milk is intended for human consumption do not use during lactation or two months before the calving.

## Contraindications

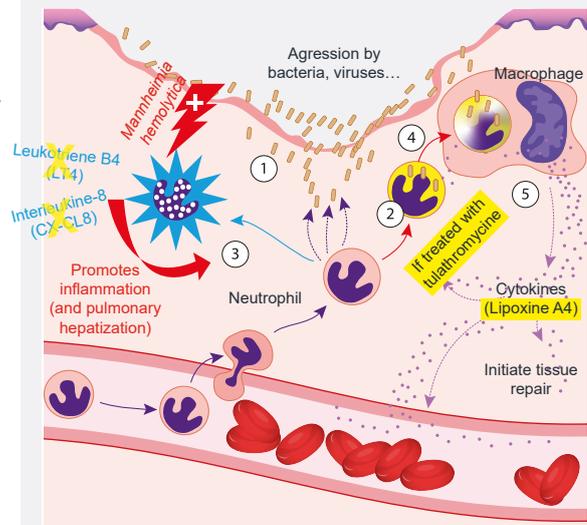
- Do not use in cases of hypersensitivity to macrolide antibiotics or to any of the excipients.
- Do not use simultaneously with other macrolides or lincosamides (see section 'Interaction with other medicinal products and other forms of interaction' in SPC).

## Presentation

Cardboard box containing 1 vial of 25 mL, or 50 mL or 100 mL or 250 mL

## Immunomodulating properties

In addition to its antimicrobial properties, tulathromycin demonstrates immunomodulating and anti-inflammatory actions in experimental studies. In both bovine and porcine polymorphonuclear cells (PMNs; neutrophils), tulathromycin promotes apoptosis (programmed cell death) and the clearance of apoptotic cells by macrophages. It lowers the production of the pro-inflammatory mediators leukotriene B4 and CXCL-8 and induces the production of anti-inflammatory and pro-resolving lipid lipoxin A4.



1. Bacteria and other pathogens enter an area of the organism.
2. Neutrophil cells are phagocytosing and digesting pathogens.
3. Some neutrophils are dying on site, releasing pro-inflammatory cytokines, increasing the inflammation process (enhanced for ex. by *Mannheimia hemolytica*).
4. With the help of Tulathromycin, an increased number of neutrophils will undergo apoptosis, which is a natural death without releasing pro-inflammatory cytokines. There is a reduced production of Leukotriene B4 and Interleukin CL8.
5. Macrophages are digesting apoptotic neutrophils (*Efferocytosis*) with pathogens and release pro-resolving cytokines (Lipoxine A4).

\* Abell KM, Theurer ME, Larson RL, White BJ, Apley M. A mixed treatment comparison meta-analysis of metaphylaxis treatments for bovine respiratory disease in beef cattle. J Anim Sci. 2017 Feb;95(2):626-635. doi: 10.2527/jas.2016.1062. PMID: 28380607.

\* O'Connor, A., Hu, D., Totton, S., Scott, N., Winder, C., Wang, B., . . . Sargeant, J. (2019). A systematic review and network meta-analysis of injectable antibiotic options for the control of bovine respiratory disease in the first 45 days post arrival at the feedlot. Animal Health Research Reviews, 20(2), 163-181. doi:10.1017/S1466252320000031

\*\* Evans NA. Tulathromycin: an overview of a new triamilide antibiotic for livestock respiratory disease. Vet Ther. 2005 Summer;6(2):83-95. PMID: 16094557.