COLISEL
Injection

For Veterinary Use Only

COMPOSITION:
Each 100ml contains:
Colistin Sulphate 20MIU

INDICATIONS:
Colisel Injection is indicated for the treatment of infections caused by gram negative microorganisms of respiratory tract (bronchial and lungs infections), gastrointestinal tract, urinogenital tract and cutaneous systems.

INTRODUCTION:
Colistin (Polymyxin E) is a cyclopeptide antibiotic produced by certain strains of Bacillus polymyxa var. colistinus. Colistin is a mixture of cyclic polypeptides colistin A and B. Colistin is effective against most gram negative bacili and is used as a polypeptide antibiotic. There are two forms of colistin available commercially, colistin sulphate and colistimethate sodium Colisin sulphate is cationic and most stable

PHARMACOKINETICS:
There is no clinically useful absorption of colistin from the gastrointestinal tract. For systemic infection, colistin must, therefore, be given by injection. Colistimethate is eliminated by the kidneys, but colistin is supposed to be eliminated by non-renal mechanism that are as yet not characterized

MODE OF ACTION:
Colistin is a cyclic polypeptide with selective activity towards gram negative micro organisms. Colistin is polycationic and has both hydrophilic and lipophilic moieties. These poly-cationic regions interact with the bacterial outer membrane, bydisplacing bacterial counter ions in the lipopolysaccharide.
It carries out its bactericidal activity by alterations in the osmotic equilibrium of the bacterial cell through a disorganization of membrane phospholipids.It determines an alteration in cell permeability with consequent loss of intracellular material and death of the cell itself. Moreover, it neutralizes the activity of endotoxins in body fluids, being very useful in cases of endotoxemia.

TOXICOLOGY
Colistin, at the indicated dosage, does not show any side effects and is perfectly tolerated.
The main toxicities of colistin described with intravenous treatment are nephrotoxicity (damage to the kidneys) and neurotoxicity (damage to the nerves) but this may reflect the very high doses given, which are much higher than the doses currently recommended.
A toxicological ADI of 0 62.5 mg/kg bw per day was calculated by applying a "safety factor of 200 to the NOEL of 12.5mg kg bw per day which was established in the 26-week repeat-dose study in Wistar rats. The "safety factor' of 200 was justified because the reporting of the study was not to modern standards.

TERATOGENICITY:
No classical multigeneration studies were carried out However there were 2 combined fertility and teratogenicity studies, one of which incorporated a littering phase to investigate perinatal and postnatal development of the offspring and the offspring from this study were mated. Consequently all the required end- point were studied. Some of the reproductive toxicity studies were carried out with sodium colistin methanesulphonate, which was of lower toxicity and had pharmacokinetics which were different from those of colistin sulphate, consequently it was not possible to extrapolate the NOELS established in these studies directly to colistin sulphate. However, it was possible to conclude that colistin did not affect male or female fertility in the rat or the mouse. In addition, colistin was not
teratogenic in the rat. The rabbit or the mouse. The NOELS for
foetotocicity and teratogenicity in a rat study with colistin sulphate were 130mg/kg bw per day the highest dose level administered. When administered parenterally as sodium colistin
methanesulphonate there was evidence of foetotoxicity (delayed ossification) and reduced pup survival at a dose level of 25mg/kg bw per day. 12.5mg/kg bw. per day was a NOEL in this study

MUTAGENICITY:
Colistin sulphate is not mutagenic in in vitro bacterial assays for gene mutation, in an in vitro assay for gene mutation in mammalian cells nor in an in vivo micronucleus test

CARCINOGENICITY:
No carcinogenicity studies were carried out. The absence of such studies was justified by the negative results obtained in the mutagenicity studies and the absence of any structurally alerting features in the chemical structure of colistin sulphate

ADVERSE EFFECTS:
Possible side effects of colistin include diarrhea, stomach cramps, dizziness, vertigo, tingling in body extremities, itching fever and decreased urination.

DOSAGE & ADMINISTRATION:
Administer the following dose through IM or SC.

Animals	Weight	Dose
Poultry	4kg	1ml
Poultry Sheep & Goats	50kg	6ml
Cows	250kg	30ml
Buffalo	350kg	42ml

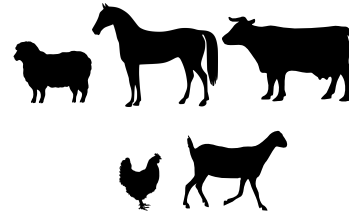
WARNINGS:
Hypersensitivity to colistin.
Renal impairment

SAFETY PROFILE:
At recommended dosage it is a safe and well tolerated product PRECAUTIONS:
Weight of the animals must be weighed for proper medication.

PRECAUTIONS:
Protect from light and heat.
Store between 15- 25°C in a cool and dry place.
Keep out of the reach of children.

WITHDRAWAL TIME:
Meat 7 days. Mik: 2 days

Innovator's Specs.



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ISO CERTIFIED COMPANY