

For the use of registered veterinary practitioner or veterinary hospital or a veterinary laboratory only

ZOXIFARM TAZO

(Ceftizoxime & tazobactam for Injection)

COMPOSITION

Category: Cephalosporins

COMPOSITION:

Each vial contains:

Ceftizoxime Sodium (Sterile) IP

Eq. to Anhydrous Ceftizoxime: 3000mg

Tazobactam Sodium (Sterile) IP

Eq. to Anhydrous Tazobactam:375mg

DESCRIPTION

Ceftizoxime is a third-generation cephalosporin antibiotic used in the treatment of bacterial infections. The combination of Ceftizoxime and Tazobactam makes it stable and effective against broad spectrum of beta-lactamases and is active against a wide range of both aerobic and anaerobic gram-positive and gram-negative organisms.

PHARMACOLOGY:

Mechanism of Action:

Ceftizoxime, a beta-lactam antibiotic inhibits bacterial cell wall synthesis by binding to one or more of the penicillin-binding proteins (PBPs). Ceftizoxime binding with PBPs and inhibits the final transpeptidation step of peptidoglycan synthesis in bacterial cell walls, thus inhibiting cell wall biosynthesis and subsequent lysis of the bacterial cell wall. Tazobactam is semi-synthetic beta-lactamase inhibitor. Tazobactam exhibits a moderate antibacterial activity that is related to its affinity for penicillin binding proteins of various bacterial strains, It is a potent, highly specific irreversible inhibitor of beta-lactamases and extended spectrum beta-lactamases (ESBLs) produced by gram negative and gram positive aerobes and anaerobes. Tazobactam binds itself with these

enzymes and blocks their destructive hydrolytic activity.

Addition of Tazobactam with Ceftizoxime provides following additional benefits:

- 1) Enhanced efficacy against beta-lactamases and extended spectrum beta-lactamases (ESBLs) producing organism.
- 2) Synergistic activity (Reduction in minimum inhibitory concentration for the combination versus those of each component).

PHARMACOKINETICS:

After its administration, Ceftizoxime is widely distributed through most body fluids and tissues including udder, kidney, lungs, bone, soft tissues, biliary tracts and extravascular spaces, pleural fluid, peritoneal fluid, synovial fluid, pericardial fluid and cerebro-spinal fluid.

Pharmacokinetics studies on calves suggest the following administration of Ceftizoxime alone, the peak plasma level is attained (C_{max} 24.9 ± max 1.11 ug/ml) at T_{max} of 45 min and maintains concentration in plasma above the minimum therapeutic concentration for upto-6 hours post-administration. Ceftizoxime because of its high lipid binding property, maintains therapeutic concentration in milk for more than 96 hours giving it the potential for one injection treatment to mastitis. It is eliminated via renal route.

As per reported studies, Ceftizoxime achieved peak concentrations at 96 hours and persisted up to 120 hours at a concentration of 36.71 ± 0.96 ug/ml. in the milk of mastitis affected cows. Staphylococcal colony count in acute

mastitis was $52.33 \pm 4.98 \times 10^5$ colony forming units/ml milk and no growth was detected at 96 hours post-dosing.

RECONSTITUTION:

Reconstitute with Sterile Water for Injections IP 20 ml for use. The reconstituted solutions should be used immediately and not be stored.

DOSAGE AND ADMINISTRATION:

ZOXIFARM TAZO is to be administered via Intramuscular/Intravenous route after reconstitution at the dose rate of 5-10 mg/kg body weight in bovine, 10-15 mg/kg in caprine and ovine.

INDICATIONS:

Mastitis
Respiratory Tract Infections
Genito-Urinary Tract Infections
Bone and Joint Infections
Meningitis
Septicaemia

SAFETY

ZOXIFARM TAZO is safe to be administered in young and pregnant animals.

ZOXIFARM TAZO dose not produce any impairment of fertility, embryo toxicity and teratogenicity.

CONTRAINDICATIONS

ZOXIFARM TAZO should not be administered to the animals with hypersensitivity to Ceftizoxime or other cephalosporins (viz. Stevens Johnson Syndrome (SJS) in dogs).

PRESENTATION

ZOXIFARM TAZO 3.375 g in Mono carton pack with 20 ml Sterile Water for Injections IP along with Sterile Syringe and Needle.

STORAGE

Store in cool & dry place. Protect from direct sunlight.
Keep out of reach of Children.

WITHDRAWAL PERIOD

Milk: 5 days
Meat: 28 days

FOR I.V. USE ONLY

NOT FOR HUMAN USE

FOR ANIMAL TREATMENT ONLY



SAVA HEALTHCARE LIMITED

Plot No. 507-B to 512, G.I.D.C. Estate,
Wadhwan City-363035, Surendranagar,
Gujarat. INDIA. | www.savavet.com