# Fritcet TZ 1.125 Injection

Product Information: Ceftriaxone Sodium I.P. 1000 mg + Tazobactam Sodium I.P. 125 mg Injection

#### Composition

- Ceftriaxone Sodium I.P.: 1000 mg
- Tazobactam Sodium I.P.: 125 mg
- Formulation Type: Sterile powder for reconstitution for intravenous (IV) or intramuscular (IM) use.

**Pharmacological Class** 

- Class: Cephalosporin antibiotic (Ceftriaxone) + Beta-lactamase Inhibitor (Tazobactam).
- Mechanism of Action:
  - Ceftriaxone: A third-generation cephalosporin that works by inhibiting bacterial cell wall synthesis, leading to cell lysis and death. It has a broad spectrum of activity against both Grampositive and Gram-negative bacteria.
  - Tazobactam: A beta-lactamase inhibitor that protects ceftriaxone from bacterial enzymes (betalactamases) that would otherwise inactivate it, thus extending the antibiotic's spectrum against betalactamase-producing bacteria.

Indications

This combination is used for the treatment of a wide variety of severe bacterial infections, including:

- 1. Lower Respiratory Tract Infections: Pneumonia, including communityacquired and hospital-acquired pneumonia.
- 2. Urinary Tract Infections (UTIs): Including pyelonephritis and complicated UTIs.
- 3. Intra-abdominal Infections: Peritonitis, abdominal abscesses, and other abdominal infections.
- 4. Skin and Soft Tissue Infections: Complicated skin infections, including diabetic foot infections.
- 5. Bacteremia (Septicemia): Bloodstream infections.
- 6. Gynecological Infections: Pelvic inflammatory disease, endometritis.
- 7. Bone and Joint Infections: Including osteomyelitis.
- 8. Meningitis: Bacterial meningitis caused by susceptible organisms.
- 9. Febrile Neutropenia: Used as empiric therapy in neutropenic patients at high risk of infection.

## **Dosage and Administration**

- Adults:
  - For most infections: 1 g of Ceftriaxone + 125 mg of Tazobactam every 12 hours, administered by IV infusion or IM injection.
  - Severe infections or higher-risk patients: Dosage may be increased to 2 g of Ceftriaxone + 250 mg of Tazobactam every 12 hours.

- Pediatric Patients (≥3 months):
  - 20-50 mg/kg of Ceftriaxone and 2.5-6.25 mg/kg of Tazobactam every 12 hours (max: 2 g of Ceftriaxone per dose).
  - Neonates: Special dosage adjustments required for premature and full-term infants.
- Route of Administration:
  - Intravenous (IV): Reconstitute the powder with sterile water for injection. For IV infusion, dilute further with 0.9% sodium chloride or 5% dextrose. Administer as an IV infusion over 30 minutes.
  - Intramuscular (IM): Reconstitute and inject slowly into a large muscle mass.
  - For both routes, the reconstituted solution must be used immediately or stored as per guidelines (usually within 6 hours at room temperature).

Contraindications

- Hypersensitivity to Ceftriaxone, Tazobactam, or any other cephalosporin antibiotics.
- Neonates (≤28 days) who require calcium treatment due to the risk of precipitates forming between ceftriaxone and calcium-containing solutions.
- Patients with a history of severe allergic reactions (e.g., anaphylaxis) to penicillins or other beta-lactam antibiotics.

history of penicillin or cephalosporin allergy.

- 2. Clostridium difficile-associated Diarrhea: Monitor for signs of diarrhea or colitis; if symptoms occur, discontinue treatment and consider alternative therapy.
- **3.** Renal Impairment: Dose adjustments are necessary in patients with renal insufficiency.
- 4. Biliary Sludge and Cholelithiasis: Ceftriaxone can precipitate biliary sludge, especially in high doses or prolonged therapy.
- 5. Superinfection: Prolonged use may lead to fungal or bacterial superinfections.
- 6. Severe Diarrhea: May occur as a side effect; discontinue treatment if severe.

### **Adverse Effects**

- Common:
  - Local reactions (pain, swelling, or irritation at the injection site), fever, rash, diarrhea, nausea, and headache.
- Serious:
  - Allergic reactions (including anaphylaxis), hematologic issues (thrombocytopenia, eosinophilia, leukopenia), liver enzyme elevation, and renal dysfunction.
  - Biliary Sludge: Ceftriaxone use in high doses or for prolonged periods can cause biliary sludge, particularly in pediatric patients.

#### Warnings and Precautions

1. Hypersensitivity Reactions: Anaphylaxis, rash, and other allergic reactions can occur. Exercise caution in patients with a

#### **Drug Interactions**

 Calcium-containing solutions: Ceftriaxone should not be mixed or simultaneously infused with calcium-containing IV solutions (e.g., Ringer's, Hartmann's), especially in neonates, due to risk of precipitation.

- Probenecid: Increases Ceftriaxone levels by inhibiting renal excretion, possibly leading to increased side effects.
- Other Antibiotics: Use cautiously when combined with other antibiotics, as it may lead to antagonistic or synergistic effects.

**Storage Instructions** 

- Store below 25°C (room temperature).
- Protect from moisture and light.
- After reconstitution, the solution should be used immediately or stored under appropriate conditions (usually 6 hours at room temperature).
- Do not freeze the reconstituted solution.

#### **Clinical Benefits**

- Broad-spectrum coverage: Effective against a wide range of bacterial infections, including resistant strains.
- Enhanced Efficacy: The addition of Tazobactam expands the efficacy of Ceftriaxone against beta-lactamaseproducing bacteria, improving outcomes in complicated infections.
- Empiric Therapy: Useful in hospitalized patients, especially those with multiple or severe infections.
- Well-tolerated: Most patients tolerate the combination well, with manageable side effects when used appropriately.

- Supplied in single-dose vials containing 1000 mg Ceftriaxone and 125 mg Tazobactam as a sterile powder.
- Available in packs of 1 vial or multiples for hospital use.

Ceftriaxone Sodium I.P. 1000 mg + Tazobactam Sodium I.P. 125 mg Injection is a potent and broad-spectrum antibiotic combination designed to treat a variety of severe bacterial infections. It is particularly effective for managing complicated infections and is used in hospital settings under the supervision of a healthcare professional.

Manufactured in India for:

# Cafoli

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