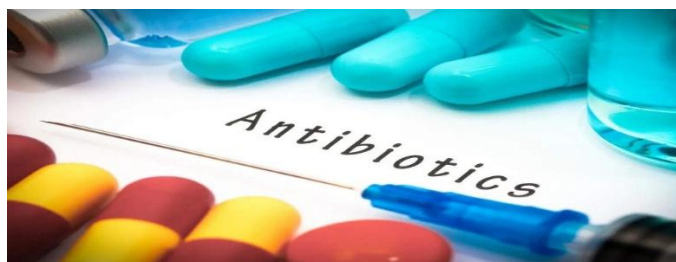


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Cefepime 2 g + Zidebactam 1 g

Overview: The emergence of multidrug-resistant (MDR) Gram-negative bacteria has reduced the effectiveness of conventional β -lactam antibiotics. ZAYNICH (cefepime + zidebactam) is a novel antibacterial combination developed by Wockhardt. Unlike conventional β -lactam/ β -lactamase inhibitor combinations, zidebactam functions as a β -lactam enhancer through complementary penicillin-binding protein (PBP) binding, improving bacterial killing.

Drug Class: Fourth-generation cephalosporin; β -lactam enhancer

Mechanism of Action: Cefepime binds primarily to PBP-3 and inhibits bacterial cell wall synthesis. Zidebactam binds strongly to PBP-2 and enhances cefepime activity by dual PBP targeting while inhibiting selected β -lactamases. Dual PBP binding (PBP-2 + PBP-3) results in rapid bacterial killing and helps overcome resistance.

Spectrum of Activity: Active against *Escherichia coli*, *Klebsiella pneumoniae*, *Enterobacter cloacae*, *Citrobacter freundii*, *Proteus mirabilis*, *Serratia marcescens*, *Pseudomonas aeruginosa* and many carbapenem-resistant Enterobacterales (based on susceptibility testing).

Approved Indications: Complicated urinary tract infection (cUTI), hospital-acquired bacterial pneumonia (HABP), ventilator-associated bacterial pneumonia (VABP), complicated intra-abdominal infections (with appropriate combination therapy), and serious MDR Gram-negative infections caused by susceptible organisms.

Adult Dose: Standard dose: Cefepime 2 g + Zidebactam 1 g IV every 8 hours. Infuse over 60 minutes. Dose adjustment is required in renal impairment.

Administration: Reconstitute according to manufacturer recommendations. Administer by IV infusion over 60 minutes. Do not mix with incompatible medications.

Adverse effects:

Common: Nausea, vomiting, diarrhea, rash, headache, elevated liver enzymes and infusion-site reactions.

Serious: Hypersensitivity reactions, neurotoxicity (especially in renal impairment), seizures, Clostridioides difficile-associated diarrhea and positive Coombs test.

Drug Interactions:-

- Aminoglycosides – increased nephrotoxicity risk.
- Loop diuretics – monitor renal function.
- Warfarin – monitor INR.
- Other nephrotoxic agents – monitor kidney function.