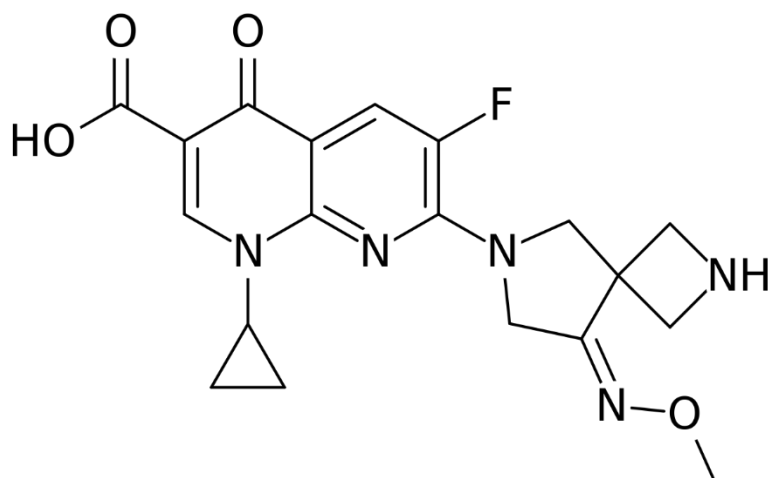
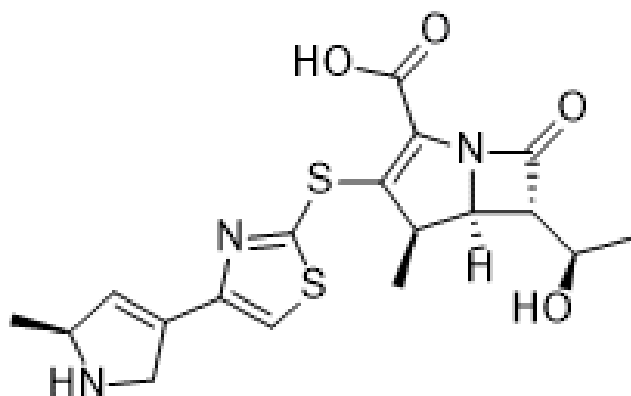


22. Zabofloxacin



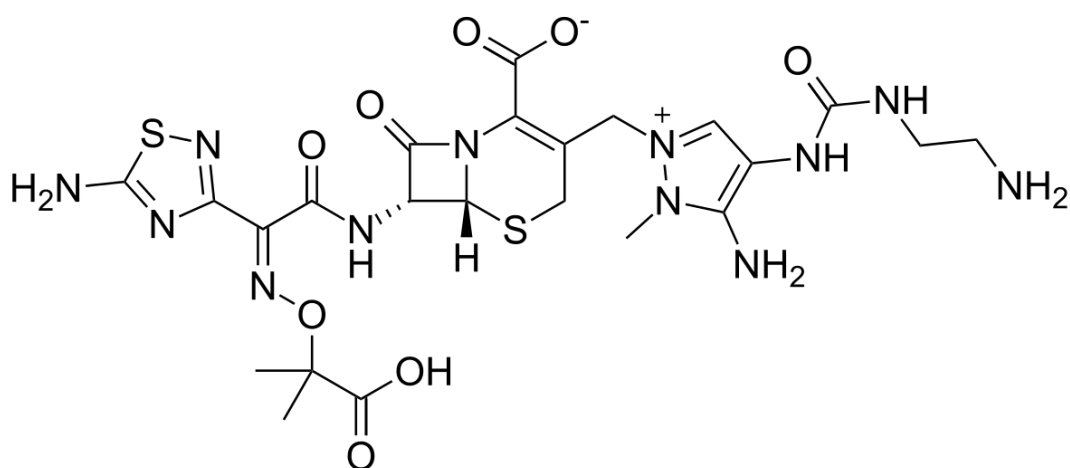
Zabofloxacin is an investigational fluoroquinolone antibiotic for multidrug-resistant infections due to Gram-positive bacteria. It also has activity against *Neisseria gonorrhoeae* including strains that are resistant to other quinolone antibiotics. Zabofloxacin has been used in trials studying the treatment of Community Acquired Pneumonia and Chronic Obstructive Pulmonary Disease. **It** is indicated for community-acquired respiratory infections due to Gram-positive bacteria.

23. Razupenem



Razupenem (PTZ-601) is a broad spectrum injectable antibiotic, from the carbapenem subgroup of beta-lactam antibiotics. It was developed as a replacement drug to combat bacteria that had acquired antibiotic resistance to commonly used antibiotics. **It** has been used in trials studying the treatment of Skin Infections.

24. Ceftolozane

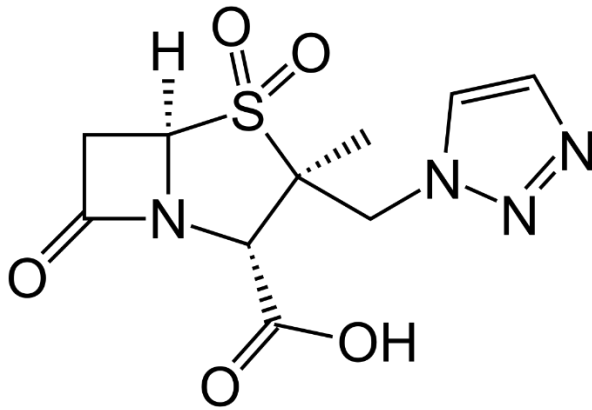


Ceftolozane is a novel cephalosporin antibiotic, developed for the treatment of infections with gram-negative bacteria that have become resistant to conventional antibiotics. It was studied for urinary tract infections, intra-abdominal infections and ventilator-associated bacterial pneumonia..

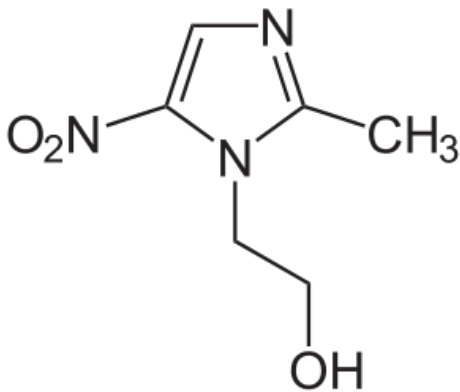
Ceftolozane/tazobactam also demonstrated superior *in vitro* activity against ceftazidime-resistant *Escherichia coli* and *K. pneumoniae* when compared with ceftriaxone, cefepime, and piperacillin/tazobactam. While the carbapenems retained good activity against this bacterium, the KPC-producing strains of *K. pneumoniae* remained highly resistant to β -lactam antimicrobials. Ceftolozane/tazobactam was shown to be more active than piperacillin/tazobactam, ceftriaxone, and ceftazidime when tested against ceftazidime-resistant strains of *Enterobacter* and *Citrobacter* species; however, less activity was noted when compared with cefepime and carbapenems.

Tazobactam

Tazobactam is a pharmaceutical drug that inhibits the action of bacterial β -lactamases, especially those belonging to the SHV-1 and TEM groups. It is commonly used as its sodium salt, **tazobactam** sodium. **Tazobactam** is combined with the extended spectrum β -lactam antibiotic

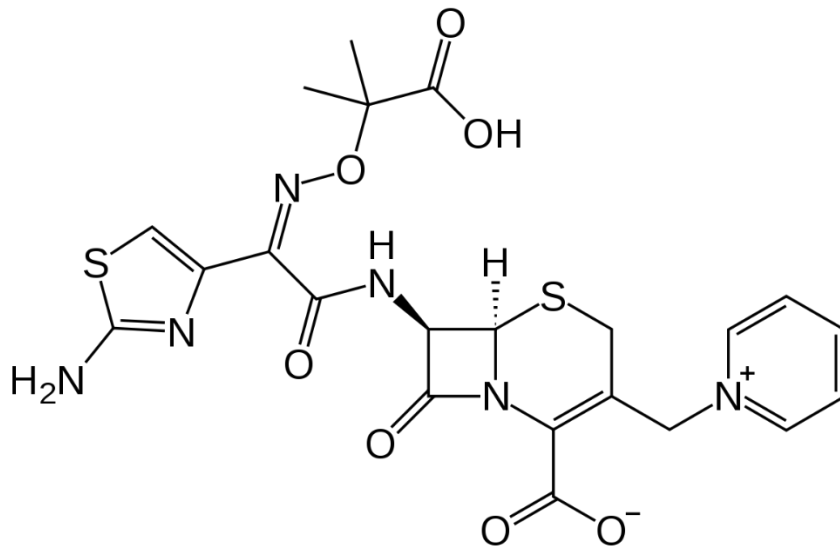


Metronidazol



Ceftolozane/Tazobactam Plus Metronidazole for the Treatment of Complicated Intra-abdominal Infections is used

25. Ceftazidime



Ceftazidime, sold under the brand names Fortaz among others, is an antibiotic useful for the treatment of a number of bacterial infections. Specifically it is used for joint infections, meningitis, pneumonia, sepsis, urinary tract infections, malignant otitis externa, *Pseudomonas aeruginosa* infection, and vibrio infection.

Ceftazidime is a semisynthetic, broad-spectrum, beta-lactam antibacterial drug for parenteral administration. Ceftazidime is a bactericidal agent that acts by inhibition of bacterial cell wall synthesis. Ceftazidime has activity in the presence of some beta-lactamases, both penicillinases and cephalosporinases, of Gram-negative and Gram-positive bacteria.

Mechanism of Resistance: Resistance to Ceftazidime is primarily through hydrolysis by beta-lactamase, alteration of penicillin-binding proteins (PBPs), and decreased permeability.

Ceftazidime/avibactam (CAZ-AVI) is a fixed-dose combination drug containing an antibiotic—3rd generation cephalosporin ceftazidime and a novel non- β -lactam β -lactamase inhibitor avibactam. It was approved for use in the United States in February 2015

Avibactam

