CEFEPIME

Cefepime is a 4th generation cephalosporin with high stability against AmpC chromosomal and plasmid-mediated cephalosporinases produced by Gram-negative pathogens.

ANTIMICROBIAL SPECTRUM

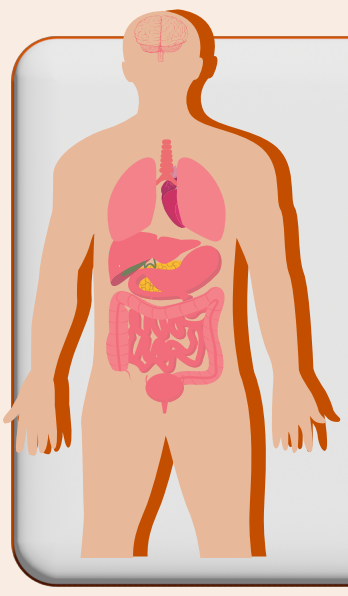
- **Gram negative** are the main indication for cefepime, including *Enterobacterales (Escherichia coli, Klebsiella pneumoniae, Proteus* sp., etc.), and *Pseudomonas aeruginosa*.
  Cefepime is also active on *Haemophilus influenzae* and *Neisseria* sp.
- **Gram positive:** methicillin-susceptible staphylococci, beta-hemolytic streptococci and viridans group streptococci are usually susceptible to cefepime.
- Cefepime has **no activity** on methicillin-resistant staphylococci, enterococci, *Listeria monocytogenes*, extended spectrum beta-lactamase (ESBL)-producing *Enterobacterales*, intra-cellular bacteria and strict anaerobes.

Use caution when administering cefepime for infections caused by *Enterobacter cloacae*, *Klebsiella aerogenes* and *Citrobacter freundii* with cefepime MICs of 4 to 8 µg/mL.
Enterobacterales isolates exhibiting cefepime MICs of 4 to 8 µg/mL (ie, susceptible dose-dependent) may have a higher likelihood of coproducing ESBLs compared with isolates with lower cefepime MICs. Limited data suggest a carbapenem may be preferred for infections caused by these organisms when the cefepime MIC is ≥4 µg/mL.

ROUTE IV

EXCRETION

Excreted unchanged in urine (85%)



MAIN INDICATIONS

- Intra-abdominal infections
- Febrile neutropenia
- Nosocomial pneumonia (including ventilator-associated pneumonia)
- Nosocomial central nervous system infections
- Complicated urinary tract infections

ADULT DOSE

- **Usual Dose:** 1–2 g IV q8-12h
- **High dose (2 g IV q8h) for very severe infections:** febrile neutropenia, central nervous system infections and obesity
- **Continuous Infusion:** Loading dose 15 mg/kg IV over 30 min and then immediately begin continuous infusion:
  - If CrCl >60 mL/min: 6 g IV over 24 h
  - If CrCl 30-60 mL/min: 4 g IV over 24 h
  - If CrCl 11-29 mL/min: 2 g IV over 24 h

SIDE EFFECTS

! Hypersensitivity, rash (2%), positive Coombs (14%), *Clostridioides difficile* infection, transaminitis.

Neurotoxicity

! FDA safety warning for risk of non-convulsive status epilepticus.

! Neurotoxicity includes encephalopathy and is concentration-dependent.

! Impaired renal function and high doses are the main risk factors.

MONITORING

- Monitor renal function.
- Observe for signs and symptoms of anaphylaxis during first dose.

PREGNANCY

FDA Category

B

ISAC
www.ISAC.world
Company Reg. Number: 7251522
Charity Reg. Number: 1139367

References can be found at www.APUA.org

Idea and concept by Mushira Enani on behalf of APUA / ISAC

APUA
www.APUA.org
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