

Ceftazidime/avibactam (Avycaz®)

IV Only

Use requires formal ID Consult

Activity: Coverage against many resistant gram-negatives such as Enterobacteriaceae and *Pseudomonas aeruginosa*, including some ESBL producers (e.g. CTX-M), carbapenemases (e.g. KPC, some OXA), and AmpCs

NOT ACTIVE against MBLs or gram-negatives that overexpress efflux pumps or have porin mutations, most anaerobic bacteria, most *Staphylococcus spp.*, and *Enterococcus spp.*

Criteria for Use:

- Treatment of cIAI (in combination with metronidazole) or cUTI, including pyelonephritis, caused by MDR gram-negative organisms

Unacceptable Uses:

- Empiric use without confirmed susceptibility
- Treatment of cIAI and cUTI with other available treatment options
- Known serious hypersensitivity to the components of ceftazidime/avibactam, avibactam-containing products, or other members of the cephalosporin class. Cross-reactivity may occur in patients with a history of penicillin allergy

Dosing in Adults:

- Standard dose: 2.5gm IV Q8H
For cIAI must use in combination with metronidazole
- Renal dose adjustment:
CrCl 31 - 50 mL/min: 1.25gm IV Q8H
CrCl 16-30 mL/min: 0.94gm IVQ12H
CrCl 6-15 mL/min: 0.94gm IV Q24H
CrCl <5 mL/min: 0.94gm IV Q48H
Administer after hemodialysis
- No hepatic dose adjustment anticipated

Monitoring:

- Scr/BUN at baseline and daily; adjust dose accordingly. CBC with differential. Monitor for signs of anaphylaxis with first dose

Considerations for Use:

- Decreased efficacy in patients with = CrCl 30-50 mL/min in clinical trials
- CNS reactions have been reported in patients treated with ceftazidime, particularly in the setting of renal impairment

BUN= blood urea nitrogen; CBC= Complete blood count; cIAI= Complicated intraabdominal infections; CNS= Central nervous system; CrCl= Creatinine clearance; cUTI= complicated urinary tract infections; ESBL= extended-spectrum beta-lactamases; H= hour(s); ID= infectious diseases; IV= Intravenous; KPC= *Klebsiella pneumoniae* carbapenemases; MBL= metallo-beta-lactamases; MDR= multi-drug resistant; Q= every; Scr= Serum creatinine