

## Aztreonam:

**Class:** Antibiotic

**Indications:** Injection: Treatment of patients with urinary tract infections, lower respiratory tract infections, septicemia, skin/skin structure infections, intra-abdominal infections, and gynecological infections caused by susceptible gram-negative bacilli

Inhalation: Improve respiratory symptoms in cystic fibrosis (CF) patients with *Pseudomonas aeruginosa*

Available dosage form in the hospital: 500MG VIAL, 1000MG VIAL.

**Trade Names:**

**Dosage:**

**-Urinary tract infection:** I.M., I.V.: 500 mg to 1 g every 8-12 hours

**-Moderately severe systemic infections:**

I.M.: 1 g every 8-12 hours

I.V.: 1-2 g every 8-12 hours

**-Severe systemic or life-threatening infections (especially caused by *Pseudomonas aeruginosa*):** I.V.: 2 g every 6-8 hours; maximum: 8 g/day

**-Meningitis (gram-negative):** I.V.: 2 g every 6-8 hours

**-*Pseudomonas aeruginosa* infection in cystic fibrosis:** Inhalation (nebulizer): 75 mg 3 times daily (at least 4 hours apart) for 28 days. Do not repeat for 28 days after completion.

Renal Impairment:

-I.M., I.V.: Adults: Following initial dose, maintenance doses should be given as follows:

-Cl<sub>cr</sub> 10-30 mL/minute: 50% of usual dose at the usual interval

-Cl<sub>cr</sub> <10 mL/minute: 25% of usual dosage at the usual interval

-Intermittent hemodialysis (IHD): Dialyzable (20% to 50%): Loading dose of 500 mg, 1 g, or 2 g, followed by 25% of initial dose at usual interval; for serious/life-threatening infections, administer one-eighth ( $\frac{1}{8}$ ) of initial dose after each hemodialysis session (given in addition to the maintenance doses). Alternatively, may administer 500 mg every 12 hours (Heintz, 2009). **Note:** Dosing dependent on the assumption of 3 times/week, complete IHD sessions.

-Peritoneal dialysis (PD): Administer as for Cl<sub>cr</sub> <10 mL/minute

-Continuous renal replacement therapy (CRRT) (Heintz, 2009; Trotman, 2005): Drug clearance is highly dependent on the method of renal replacement, filter type, and flow rate. Appropriate dosing requires close monitoring of pharmacologic response, signs of adverse reactions due to drug accumulation, as well as drug concentrations in relation to target trough (if appropriate). The following are general recommendations only (based on dialysate flow/ultrafiltration rates of 1-2 L/hour and minimal residual renal function) and should not supersede clinical judgment:

-CVVH: Loading dose of 2 g followed by 1-2 g every 12 hours

-CVVHD/CVVHDF: Loading dose of 2 g followed by either 1 g every 8 hours **or** 2 g every 12 hours (Heintz, 2009)

**Common side effect:** Neutropenia ,Skin rash ,Diarrhea ,nausea ,vomiting ,  
Eosinophilia ,thrombocytopenia .

**Pregnancy Risk Factor: B**