

Suggested initial dose and time to re-dosing for antimicrobials commonly utilized for surgical prophylaxis

Antimicrobial	Half-life Normal renal function (hours)	Half-life End-stage renal disease (hours)	Recommended Infusion Time (minutes)	Standard intravenous dose (grams)	Weight-based dose recommendations* (milligrams)	Recommended re-dosing interval† (hours)
Aztreonam	1.5-2	6	3-5* 20-60§	1-2	Maximum 2 grams (adults)	3-5
Ciprofloxacin	3.5-5	5-9	60	400 mg	400 mg	4-10
Cefazolin	1.2-2.5	40-70	3-5* 15-60§	1-2	20-30 mg/kg 1 gm < 80 kg 2 gm ≥ 80 kg	2-5
Cefuroxime	1-2	15-22	3-5* 15-60§	1.5	50 mg/kg	3-4
Cefamandole	0.5-2.1	12.3-18‡	3-5* 15-60§	1		3-4
Cefoxitin	0.5-1.1	6.5-23	3-5* 15-60§	1-2	20-40 mg/kg	2-3
Cefotetan	2.8-4.6	13-25	3-5* 20-60§	1-2	20-40 mg/kg	3-6
Clindamycin	2-5.1	3.5-5.0**	10-60 (do not exceed 30 mg/min)	600-900 mg	<10 kg: at least 37.5 mg ≥10 kg: 3-6 mg/kg	3-6

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Erythromycin base	0.8-3	5-6	NA	1 gm orally 19, 18, 9 hours before surgery	9-13 mg/kg	NA
Gentamicin	2-3	50-70	30-60	1.5 mg/kg‡	See footnote ††	3-6
Neomycin	2-3 hours (3% absorbed under normal gastrointes- tinal conditions)	12-24 or greater	NA	1 gm orally 19, 18, 9 hours before surgery	20 mg/kg	NA
Metronidazole	6-14	7-21 no change	30-60	0.5-1	15 mg/kg (adult) 7.5 mg/kg on subsequent doses	6-8
Vancomycin	4-6	44.1-406.4 (Cl <sub>cr</sub> < 10 ml/min)	1 gram over 60 min (use longer infusion time if dose > 1 gram)	1.0	10-15 mg/kg (adult)	6-12

\* Weight-based doses are primarily from published pediatric recommendations. † For procedures of long duration, antimicrobials should be redosed at intervals of 1-2 times the half-life of the drug. The intervals in the table were calculated for patients with normal renal function. \* Dose injected directly into vein or running intravenous fluids. § Intermittent intravenous infusion. ‡ In patients with a serum creatinine 5-9 mg/dL. \*\* The half-life of clindamycin is the same or slightly increased in patients with end-stage renal disease as compared to patients with normal renal function. †† If the patient's weight is more than 30% above their ideal body weight (IBW), dosing weight (DW) can be determined as follows: DW=IBW+0.4 (total body weight-IBW).

