

Table 1.

### Recommended Doses and Redosing Intervals for Commonly Used Antimicrobials for Surgical Prophylaxis

Antimicrobial	Recommended Dose		Half-life in Adults With Normal Renal Function, hr <sup>19</sup>	Recommended Redosing Interval (From Initiation of Preoperative Dose), hr <sup>c</sup>
	Adults <sup>a</sup>	Pediatrics <sup>b</sup>		
Ampicillin-sulbactam	3 g (ampicillin 2 g/sulbactam 1 g)	50 mg/kg of the ampicillin component	0.8–1.3	2
Ampicillin	2 g	50 mg/kg	1–1.9	2
Aztreonam	2 g	30 mg/kg	1.3–2.4	4
Cefazolin	2 g, 3 g for pts weighing ≥120 kg	30 mg/kg	1.2–2.2	4
Cefuroxime	1.5 g	50 mg/kg	1–2	4
Cefotaxime	1 g <sup>d</sup>	50 mg/kg	0.9–1.7	3
Cefoxitin	2 g	40 mg/kg	0.7–1.1	2
Cefotetan	2 g	40 mg/kg	2.8–4.6	6
Ceftriaxone	2 g <sup>e</sup>	50–75 mg/kg	5.4–10.9	NA
Ciprofloxacin <sup>f</sup>	400 mg	10 mg/kg	3–7	NA
Clindamycin	900 mg	10 mg/kg	2–4	6
Ertapenem	1 g	15 mg/kg	3–5	NA
Fluconazole	400 mg	6 mg/kg	30	NA
Gentamicin <sup>g</sup>	5 mg/kg based on dosing weight (single dose)	2.5 mg/kg based on dosing weight	2–3	NA
Levofloxacin <sup>f</sup>	500 mg	10 mg/kg	6–8	NA
Metronidazole	500 mg	15 mg/kg	6–8	NA

Neonates weighing <1200 g should receive a single 7.5-mg/kg dose

Table 1 (continued)

Antimicrobial	Recommended Dose		Half-life in Adults With Normal Renal Function, hr <sup>19</sup>	Recommended Redosing Interval (From Initiation of Preoperative Dose), hr <sup>c</sup>
	Adults <sup>a</sup>	Pediatrics <sup>b</sup>		
Moxifloxacin <sup>f</sup>	400 mg	10 mg/kg	8–15	NA
Piperacillin–tazobactam	3.375 g	Infants 2–9 mo: 80 mg/kg of the piperacillin component Children >9 mo and ≤40 kg: 100 mg/kg of the piperacillin component	0.7–1.2	2
Vancomycin	15 mg/kg	15 mg/kg	4–8	NA
<i>Oral antibiotics for colorectal surgery prophylaxis (used in conjunction with a mechanical bowel preparation)</i>				
Erythromycin base	1 g	20 mg/kg	0.8–3	NA
Metronidazole	1 g	15 mg/kg	6–10	NA
Neomycin	1 g	15 mg/kg	2–3 (3% absorbed under normal gastrointestinal conditions)	NA

<sup>a</sup>Adult doses are obtained from the studies cited in each section. When doses differed between studies, expert opinion used the most-often recommended dose.

<sup>b</sup>The maximum pediatric dose should not exceed the usual adult dose.

<sup>c</sup>For antimicrobials with a short half-life (e.g., cefazolin, cefoxitin) used before long procedures, redosing in the operating room is recommended at an interval of approximately two times the half-life of the agent in patients with normal renal function. Recommended redosing intervals marked as “not applicable” (NA) are based on typical case length; for unusually long procedures, redosing may be needed.

<sup>d</sup>Although FDA-approved package insert labeling indicates 1 g,<sup>14</sup> experts recommend 2 g for obese patients.

<sup>e</sup>When used as a single dose in combination with metronidazole for colorectal procedures.

<sup>f</sup>While fluoroquinolones have been associated with an increased risk of tendinitis/tendon rupture in all ages, use of these agents for single-dose prophylaxis is generally safe.

<sup>g</sup>In general, gentamicin for surgical antibiotic prophylaxis should be limited to a single dose given preoperatively. Dosing is based on the patient’s actual body weight. If the patient’s actual weight is more than 20% above ideal body weight (IBW), the dosing weight (DW) can be determined as follows:  $DW = IBW + 0.4(\text{actual weight} - IBW)$ .