

**Table 2. Antimicrobial Therapy for *S. marcescens***

Antibiotic	Usual Dose	Comments
<b>Third-generation cephalosporins/b-lactamase inhibitor combinations</b>		Inadvisable for treatment of infection where resistance is likely to develop. Remain the treatment of choice for UTI and uncomplicated infection. Often combined with aminoglycosides.
Cefotaxime	1–2 g q. 4–8 h	
Ceftriaxone	1–2 g q. 24 h	
Ceftazidime	1–2 g q. 8 h	
Pip/ tazobactam	4.5 g q 8 h	
<b>Fourth-generation cephalosporins</b>		Effective treatment option where resistance to third-generation cephalosporins is evident or likely to develop. Active against ESBL- and chromosomal $\beta$ -lactamase-producing <i>S. marcescens</i>
Cefepime	1 g q. 12 h	
Cefpirome	1–2 g q 12 h	
<b>Carbapenems</b>		Considered the treatment of choice when third-generation cephalosporin resistance is evident or likely to develop.
Imipenem	0.5–1 g q. 6 h	
Meropenem	1g q. 8 h	
<b>Fluoroquinolones</b>		Prudent to avoid for treatment of serious infection due to the ready development of resistance. Can be used for the treatment of uncomplicated UTI
Ciprofloxacin	400–800 mg q. 12 h	Oral formulations can be used in UTI
Ofloxacin	200–400 mg q.12 h	
Levofloxacin	500 mg q. 24 h	
Norfloxacin	400 mg p.o b.i.d.	No i.v. formulation, only for UTI
<b>Aminoglycosides</b>		No longer treatment of choice. Maybe combined with third-generation cephalosporins for the treatment UTI or combined with fourth-generation cephalosporins or carbapenems for the treatment of serious infection
Gentamicin	3–5 mg/kg/day x SD	Most frequently used of the aminoglycosides
Tobramycin	3–5 mg/kg/day x SD	
Amikacin	15 mg/kg/day x SD	Frequently active against gentamicin-resistant <i>S. marcescens</i>
Netilmicin	4–6 mg/kg/day x SD	
<b>Miscellaneous</b>		
Aztreonam	1–2 g q. 6–8 h	
Trimethoprim-sulfamethoxazole	960 mg b.d. or 120 mg/kg 2–4 dose/24 h	Usually active; suitable for UTI but rarely used as sole agent for more serious infections
Rifampin	600mg q. 24 h	May be used in combination with other agents

Pip/tazobactam, piperacillin/tazobactam; SD, single dose.