

Type of infection	Unknown source ³	Pneumonia ³	Intra-abdominal infection	Acute bacterial meningitis
Community-acquired infection	a. piperacillin/tazobactam 4 g x 3-4 ¹ b. cefotaxime 2 g x 3 c. meropenem 1 g x 3-4 ¹ ± aminoglycoside ²	a. cefotaxime 2 g x 3 + erythromycin 1 g x 3 b. benzylpenicillin 3 g x 4 + moxifloxacin 400 mg x 1	a. piperacillin/tazobactam 4 g x 3-4 ¹ b. cefotaxime 2 g x 3 + metronidazole 1.5 g x 1 c. meropenem 1 g x 3-4 ¹ ± aminoglycoside ²	meropenem 2 g x 3 + betamethasone 8 mg x 4
Hospital-acquired infection (> 48 hours after hospital admission)	a. piperacillin/tazobactam 4 g x 3-4 ¹ b. meropenem 1 g x 3-4 ¹ ± vancomycin ³ ± aminoglycoside ²	a. piperacillin/tazobactam 4 g x 3-4 ¹ b. meropenem 1 g x 3-4 ¹ ± aminoglycoside ²	a. piperacillin/tazobactam 4 g x 3-4 ¹ b. meropenem 1 g x 3-4 ¹ ± aminoglycoside ²	meropenem 2 g x 3 + vancomycin 15 mg/kg x 3
Neutropenia (neutrophils ≤ 0.5)	a. meropenem 1 g x 4 b. piperacillin/tazobactam 4 g x 4 ± aminoglycoside ²	a. piperacillin/tazobactam 4 g x 4 + moxifloxacin 400 mg x 1 b. meropenem 1 g x 4 + moxifloxacin 400 mg x 1	a. meropenem 1 g x 4 b. piperacillin/tazobactam 4 g x 4 ± aminoglycoside ²	meropenem 2 g x 3 + betamethasone 8 mg x 4
Severe allergy to beta-lactam antibiotics (anaphylactic shock, airway swelling/obstruction)	clindamycin 600 mg x 3-4 + ciprofloxacin 400 mg x 3 ± aminoglycoside ²	a. clindamycin 600 mg x 3-4 + moxifloxacin 400 mg x 1 b. clindamycin 600 mg x 3-4 + ciprofloxacin 400 mg x 3 (for hospital-acquired infection / suspected <i>Pseudomonas</i>)	clindamycin 600 mg x 3-4 + ciprofloxacin 400 mg x 3 ± aminoglycoside ²	a. meropenem 2 g x 3 (not in patients with shock caused by beta-lactam antibiotics) b. moxifloxacin + vancomycin 15 mg/kg x 3 + trimethoprim/sulfonamide 20 mL x 2 (in patients with shock caused by beta-lactam antibiotics)
Consider	- Recommendations for "unknown source" include a urinary tract source - Necrotising soft-tissue infection (fasciitis): meropenem 1 g x 4 + clindamycin 600 mg x 3-4 + consider IV immunoglobulin (GAS / <i>S. aureus</i>) - Endocarditis in patients with valvular disease or a heart murmur - Malaria: Africa/Asia	- Legionella: foreign travel, immunosuppression, chronic lung disease - Pneumocystis / Aspergillus: immunosuppression - Tuberculosis: country of origin, age, immunosuppression, substance misuse, prolonged course - Influenza: Tamiflu 75 mg x 2 orally + cefotaxime 2 g x 3	- Early source control - Invasive Candida: prolonged ICU stay, neutropenia, intestinal perforation, CVVDH. Fluconazole IV 800 mg x 1 on day 1, then 400 mg x 1; in sepsis, micafungin 100 mg x 1	- TB meningitis: country of origin - Fungal meningitis: immunosuppression - Herpes encephalitis: focal neurological symptoms; aciclovir 10 mg/kg x 3

Severe and complicated infections should be assessed by an infectious diseases specialist / senior on-call physician within 24 hours, or no later than the next working day.

¹**Beta-lactam antibiotics:** In septic shock, high and frequent doses must always be given because of the increased volume of distribution (piperacillin/tazobactam 4 g x 4, cefotaxime 2 g x 3, meropenem 1 g x 4). Give an additional loading dose of the chosen beta-lactam approximately 3 hours after the first dose. Once the condition has stabilised, the usual beta-lactam dosage should generally be resumed.

²**Adjunctive aminoglycoside treatment** should always be considered in sepsis and septic shock (Sepsis-3) if the infection may be caused by Gram-negative bacteria (unknown source, urosepsis, intra-abdominal infection, VAP). Tobramycin (Nebcina®) is given at 7 mg/kg x 1. In overweight patients, base the dose on estimated ideal body weight. If the risk of ESBL-producing bacteria is increased (ESBL infection, healthcare abroad, a stay in an ESBL-endemic country within the past 6 months, or cephalosporin/quinolone treatment within the past 3 months), use amikacin instead, since ESBL-producing bacteria are often also resistant to tobramycin. Amikacin (Biklin®) is given at 25 mg/kg x 1, with adjustment for overweight as above. A single aminoglycoside dose is often sufficient; any further dosing is guided by a concentration measurement after 24 hours (trough level).

³**Adjunctive vancomycin** 15 mg/kg x 3 should be considered in known MRSA carriers (except with a urinary tract source) and in suspected healthcare-associated coagulase-negative staphylococcal infection. Measure the concentration before the 4th dose (trough level). Depending on the resistance pattern, other antibiotics may be chosen in some cases.

Patients with renal failure / dialysis: During the first 24 hours of treatment, beta-lactam antibiotics should be dosed as for normal renal function. For subsequent dosing during dialysis, see the national guidance: [Click here](#).