

Pneumonia Antibiotic Consensus Recommendations

Patient Type	Antibiotic Recommendation
Non – ICU Patient	<p>β-lactam (IV or IM) Table 2.3 + Macrolide (IV or PO) Table 2.5 – Regimen 3a</p> <p>Or</p> <p>Antipneumococcal Quinolone monotherapy (IV or PO) Table 2.9 – Regimen 1a</p> <p>Or</p> <p>β-lactam (IV or IM) Table 2.3 + Doxycycline (IV or PO) Table 2.10 – Regimen 3a</p> <p>Or</p> <p>Tigecycline monotherapy (IV) Table 2.12 – Regimen 2a1</p> <p>Or</p> <p>If less than 65 with no <i>Risk Factors for Drug-Resistant Pneumococcus</i> (see data element) Macrolide monotherapy (IV or PO) Table 2.5 – Regimen 2a2</p> <p>β-lactam = Ceftriaxone, Cefotaxime, Ampicillin/Sulbactam, Ertapenem</p> <p>Macrolide = Erythromycin, Clarithromycin, Azithromycin</p> <p>Antipneumococcal Quinolones = Levofloxacin¹, Moxifloxacin, Gemifloxacin</p>

Patient Type	Antibiotic Recommendation
ICU Patient	<p>Macrolide (IV) Table 2.6+ either β-lactam (IV) Table 2.16 OR Antipneumococcal/Antipseudomonal β-lactam (IV) Table 2.4 – Regimen 1b</p> <p style="text-align: center;">Or</p> <p>Antipseudomonal Quinolone (IV) Table 2.8 + either β-lactam (IV) Table 2.16 OR Antipneumococcal/Antipseudomonal β-lactam (IV) Table 2.4 – Regimen 2b</p> <p style="text-align: center;">Or</p> <p>Antipneumococcal Quinolone (IV) Table 2.14 + either β-lactam (IV) Table 2.16 OR Antipneumococcal/Antipseudomonal β-lactam (IV) Table 2.4 – Regimen 2b</p> <p style="text-align: center;">Or</p> <p>Antipneumococcal/Antipseudomonal β-lactam (IV) Table 2.4 + Aminoglycoside (IV) Table 2.11 + either Antipneumococcal Quinolone (IV) Table 2.14 OR Macrolide (IV) Table 2.6 – Regimen 3b</p> <p>β-lactam = Ceftriaxone, Cefotaxime, Ampicillin/Sulbactam,</p> <p>Antipneumococcal/Antipseudomonal β-lactam = Cefepime, Imipenem, Meropenem, Piperacillin/Tazobactam, Doripenem</p> <p>Macrolide = Erythromycin, Azithromycin</p> <p>Antipneumococcal Quinolones = Levofloxacin¹, Moxifloxacin</p> <p>Antipseudomonal Quinolone = Ciprofloxacin, Levofloxacin¹</p> <p>Aminoglycoside = Gentamicin, Tobramycin, Amikacin</p>
Non-ICU patient with Pseudomonal Risk	<p>These antibiotics are acceptable for Non-ICU patients with Pseudomonal Risk ONLY:</p> <p>Antipneumococcal/Antipseudomonal β-lactam (IV) Table 2.4 + Antipseudomonal Quinolone (IV or PO) Table 2.8 – Regimen 4a</p> <p style="text-align: center;">Or</p>

Patient Type	Antibiotic Recommendation
	<p>Antipneumococcal/Antipseudomonal β-lactam (IV) Table 2.4 + Aminoglycoside (IV) Table 2.11 + either Antipneumococcal Quinolone (IV or PO) Table 2.9 Or Macrolide (IV or PO) Table 2.5 – Regimen 5a</p> <p>These antibiotics are ONLY acceptable for Non-ICU patients with β-lactam allergy and Pseudomonal Risk: Aztreonam (IV or IM) Table 2.7 + Antipneumococcal Quinolone (IV or PO) Table 2.9 + Aminoglycoside (IV) Table 2.11 – Regimen 6a</p> <p style="text-align: center;">Or</p> <p>Aztreonam² (IV or IM) Table 2.7 + Levofloxacin¹ (IV or PO) Table 2.17 – Regimen 7a</p> <p>Antipseudomonal Quinolone = Ciprofloxacin, Levofloxacin¹</p> <p>Antipneumococcal/Antipseudomonal β-lactam = Cefepime, Imipenem, Meropenem, Piperacillin/Tazobactam, Doripenem</p> <p>Aminoglycoside = Gentamicin, Tobramycin, Amikacin</p> <p>Antipneumococcal Quinolone = Levofloxacin¹, Moxifloxacin, Gemifloxacin</p> <p>Macrolide = Erythromycin, Clarithromycin, Azithromycin</p>

Data collected by the CMS National Pneumonia Project indicate that 78% of Medicare pneumonia patients who were hospitalized during 1998-99 received antibiotics that were consistent with guidelines published at that time. Among the states and territories this ranged from 55% to 87%. Compliance was lower among ICU patients, largely because atypical pathogen coverage was generally not common, but was only recommended for ICU patients. Subsequent revisions have made such coverage recommended for all inpatients.

¹ Levofloxacin should be used in 750mg dosage when used in the management of patients with pneumonia.

² For patients with renal insufficiency.

Note: The dosage listed is specified to reflect clinical expert recommendations. We do not collect dosage information for the purposes of the Pneumonia Project.