Pneumonia Antibiotic Consensus Recommendations

<table>
<thead>
<tr>
<th>Non-ICU Patient</th>
<th>ICU Patient</th>
<th>Pseudomonal Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>β-lactam (IV or IM)</strong> Table 2.3 + Macrolide (IV or oral) Table 2.5</td>
<td><strong>β-lactam (IV)</strong> Table 2.16 + Macrolide (IV) Table 2.6</td>
<td>These antibiotics would also be acceptable for ICU and Non-ICU patients with Pseudomonal Risk</td>
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<tr>
<td>Or Antipneumococcal Quinolone monotherapy (IV or oral) Table 2.9</td>
<td>Or <strong>β-lactam (IV)</strong> Table 2.16 + Antipneumococcal Quinolone (IV) Table 2.14</td>
<td>Antipseudomonal <strong>β-lactam (IV)</strong> Table 2.4 + Antipseudomonal Quinolone (IV) Table 2.8 (PO Quinolone is allowed for Non-ICU only)</td>
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<tr>
<td>Or <strong>β-lactam (IV or IM)</strong> Table 2.3 + Doxyccylne (IV or oral) Table 2.10</td>
<td>Or <strong>β-lactam (IV)</strong> Table 2.14 + Aztreonam (IV) Table 2.7</td>
<td>Or <strong>Antipseudomonal β-lactam (IV)</strong> Table 2.4 + Aminoglycoside (IV) Table 2.11 + either Antipneumococcal Quinolone (IV) Table 2.14 Or Macrolide (IV) Table 2.6 (PO Quinolone is allowed for Non-ICU only Table 2.9)</td>
</tr>
<tr>
<td>Or If less than 65 with no Risk Factors for Drug-Resistant Pneumococcus (see data element) Macrolide monotherapy (IV or oral) Table 2.5</td>
<td><strong>β-lactam = Ceftriaxone, Cefotaxime, Ampicillin/Sulbactam, Macrolide = Erythromycin, Azithromycin</strong> Antipneumococcal Quinolones = Levofloxacin**, Moxifloxacin, Gemifloxacin</td>
<td><strong>Aztreonam (IV)</strong> Table 2.7 + Antipseudomonal Quinolone (IV) Table 2.14 + Aminoglycoside (IV) Table 2.11 (PO Quinolone is allowed for Non-ICU only Table 2.9) *<strong>Aztreonam (IV) Table 2.7 + Levofloxacin</strong> (IV or oral) Table 2.17</td>
</tr>
</tbody>
</table>

β-lactam = Ceftriaxone, Cefotaxime, Ampicillin/Sulbactam, Ertapenem
Macrolide = Erythromycin, Clarithromycin, Azithromycin
Antipneumococcal Quinolones = Levofloxacin**, Moxifloxacin, Gemifloxacin

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.

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

*** 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.
PN-6: Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patients

**Numerator:** Pneumonia patients who received an initial antibiotic regimen consistent with current guidelines during the first 24 hours of their hospitalization

**Denominator:** Pneumonia patients 18 years of age and older.

**Variable Key:**
- Patient Age
- Duration of Stay
- Antibiotic Days
- Abxday Flag
- ANTIMINUTES
  - Regimen1a
  - Regimen2a
  - Regimen3a
  - Regimen4a
  - Regimen5a
  - Regimen6a
  - Regimen7a
  - Regimen1b
  - Regimen2b
  - Regimen3b
  - Regimen4b
  - Regimen5b
  - Regimen6b

Run cases that are included in the PN Initial Patient Population and pass the edits defined in the Data Processing Flow through this measure.
Specifications Manual for National Hospital Inpatient Quality Measures

Discharges 10-01-08 (4Q08) through 03-31-09 (1Q09)
For each case, include for further processing only those antibiotic doses that are on Table 2.1 and whose associated route = 1, 2, or 3.
Specifications Manual for National Hospital Inpatient Quality Measures

Discharges 10-01-08 (4Q08) through 03-31-09 (1Q09)
The Patient Age is calculated from Admission Date – Birthdate as part of the ICD Population logic.

**Note:** When checking for route of antibiotic, check ONLY for the corresponding antibiotic. For example: if an antibiotic on Table 2.9 was received by the patient, check if route was appropriate for that antibiotic only.

Regimen 1a: All non-ICU patients

Regimen 2a: non-ICU patients without Drug Resistant Pneumococcus Risk

Regimen 3a: All non-ICU patients
Regimen 4a: non-ICU patients with Pseudomonas Risk

Regimen 5a: non-ICU patients with Pseudomonas Risk

Regimen 6a: non-ICU patients with Pseudomonas Risk and Beta lactam allergy

Regimen 7a: non-ICU patients with Pseudomonas Risk and Beta lactam allergy
Note: When checking for route of antibiotic, check ONLY for the corresponding antibiotic. For example if an antibiotic on Table 2.9 was received by the patient check if route was appropriate for that antibiotic only.
Note: This section of the logic should be reached only if no recommended regimen was administered.

**Another Suspected Source of Infection**

- **PN-6 O**
- **PN-6 X** Missed
- **PN-6 P** None is ≤ 1440

**Antibiotic Days**

- Y = 0 for at least one antibiotic dose
- ≤ 0 for all antibiotic doses

**Antiminutes**

- ≤ 1440 for at least one antibiotic dose

**PN-6 B**
Stop

Not In Measure Population

In Measure Population

In Numerator Population

Case Will Be Rejected