WFBH Community Acquired Pneumonia (CAP) Empiric Treatment Guide for Adults

For patients with onset of pneumonia occurring ≥ 48 hours after hospital admission; see Hospital Acquired Pneumonia (HAP) guidelines
Patients who are immunocompromised are excluded from these guidelines

	Treatment[a]	Severe penicillin allergy[a] [anaphylaxis/hives/other immediate-type hypersensitivity reactions]
Outpatients: Evaluate for comorbidities		
No significant comorbidities	Amoxicillin 1 g PO TID ***or*** Doxycycline 100 mg PO BID	Doxycycline 100 mg PO BID ***or*** Moxifloxacin 400 mg PO daily ***or*** Levofloxacin 750 mg PO daily[b,c]
Patients with the following comorbidities: heart, lung, liver or renal disease; diabetes mellitus; alcoholism; malignancy; or asplenia	Amoxicillin/clavulanate 875 mg PO BID ***or*** Cefuroxime 500 mg PO BID ***plus*** Azithromycin 500 mg PO x 1, then 250 mg PO daily ***or*** Doxycycline 100 mg PO BID **OR** Monotherapy: Moxifloxacin 400 mg PO daily ***or*** Levofloxacin 750 mg PO daily[b,c]	Moxifloxacin 400 mg PO daily ***or*** Levofloxacin 750 mg PO daily[c]
Inpatients: Evaluate for Pseudomonas risk factors, then MRSA risk factors		
No Pseudomonas Risk Factors (Risk Factors: [Hospitalized for 3 or more days **and** received parenteral antibiotics in past 90d] ***or*** history of isolation of Pseudomonas from respiratory culture in past year)		
Non-severe	Ceftriaxone 1 g IV daily ***plus*** Azithromycin 500 mg PO x 1, then 250 mg PO daily [***add*** Vancomycin or Linezolid if MRSA risk* present]	Moxifloxacin 400 mg PO daily ***or*** Levofloxacin 750 mg PO daily[c] [***add*** Vancomycin or Linezolid if MRSA risk* present]
Severe	Ceftriaxone 2 g IV daily ***plus*** Azithromycin 500 mg IV daily [***add*** Vancomycin or Linezolid if MRSA risk* present]	[Moxifloxacin 400 mg IV daily ***or*** Levofloxacin 750 mg IV daily[c]] ***plus*** Vancomycin IV
Pseudomonas Risk Factors (Risk Factors: [Hospitalized for 3 or more days **and** received parenteral antibiotics in past 90d] ***or*** history of isolation of Pseudomonas from respiratory culture in past year)		
Non-severe **AND** Severe EI = extended infusion	(Cefepime 1 g IV Q8H EI ***or*** Piperacillin/tazobactam 3.375 g IV Q8H EI) ***Plus*** Azithromycin 500 mg IV daily[d] [***add*** Vancomycin or Linezolid if MRSA risk* present][d]	Solicit advice from CAUSE or ID

MRSA Risk Factors**: [Hospitalized for 3 or more days **and** received parenteral antibiotics in past 90 days]; ***or history of isolation of MRSA from respiratory culture in past year; ***or*** necrotizing pneumonia or cavitary infiltrates on chest radiograph; ***or*** post-influenza pneumonia; ***or*** intravenous drug use

Treatment Principles

- Routine addition of antimicrobials with activity against anaerobic organisms is **not** recommended for aspiration pneumonia unless lung abscess or empyema is suspected
- Recommended treatment duration for CAP is 5 days for most organisms and 7 days for Pseudomonas and MRSA. Treatment durations should be based on clinical response.
- If initiating anti-MRSA therapy, consider obtaining MRSA nasal swabs prior to initiating antibiotics. Negative MRSA nasal swabs have a reliable negative predictive value to rule out MRSA as a cause of CAP in most situations
- Consider opportunities for de-escalation (eg, change pip/tazo to ceftriaxone for susceptible gram-negative pathogen)

Footnotes

a. Dosing assumes normal renal function
b. Fluoroquinolones are generally positioned as non-preferred alternatives to other antibiotics due to safety concerns
c. Choice of moxifloxacin vs. levofloxacin should be made in accordance with inpatient formulary status &/or outpatient insurance preference.
d. Consider addition of amikacin if:
    - History of positive culture for multi-drug resistant gram-negative organisms in the past year
    - Patient requires ventilator support due to pneumonia or septic shock