WFBMC Community Acquired Pneumonia (CAP) Treatment Guide for Adults

[Patients with onset of pneumonia occurring ≥ 48 hours after hospital admission; see Hospital Acquired Pneumonia (HAP) guidelines. Patients who are neutropenic are also excluded from these guidelines.]

Attention: Please Document in Medical Record What Risk Factors are Present		**Patient Type**	**Treatment[a]**	**If Severe Penicillin Allergy[a,e]**
Note: Patients previously defined with Healthcare associated pneumonia (HCAP) per previous guidelines (e.g. residents of nursing homes, receiving home infusion therapy or wound care, or chronic dialysis within 30 days) are included in these guidelines. In lieu of the HCAP categorization previously used, a thorough risk assessment should be performed to determine appropriate antimicrobial therapy. Consider risk factors listed below when choosing empiric therapy. **Pseudomonas Risk Factors** • Inpatients hospitalized for 3 or more days in the past 60 days • Structural Lung Disease (e.g. bronchiectasis, cystic fibrosis, etc.) • Broad spectrum antibiotics within the past 60 days • History of respiratory positive culture for Pseudomonas in the past year **MRSA* Risk Factors** • Necrotizing pneumonia or cavitary infiltrates on chest radiograph • Post-influenza pneumonia • History of positive culture for MRSA (i.e. colonized with MRSA) • Intravenous drug use For patients being admitted who are critically ill or immunocompromised or with an atypical pattern on CXR, consider ordering a respiratory viral panel (RVP).		**Outpatient** No Significant Past Medical History	Azithromycin 500mg PO x 1, then 250mg PO Q24h[b] or Doxycycline 100mg PO Q12h[c]	
		Significant comorbidities or antibiotic exposure in past 60 days **See footnote F**	Amoxicillin 1,000mg PO TID ***plus*** Azithromycin 500mg PO x 1, then 250mg PO Q24h[b] or Doxycycline 100mg PO Q12h[c] **OR** Amoxicillin/clavulanate 875mg PO Q12h ***plus*** Azithromycin 500mg PO x 1, then 250mg PO Q24h[b] or Doxycycline 100mg PO Q12h[c] **OR** Moxifloxacin 400mg PO Q24h[f,k]	Moxifloxacin 400mg PO Q24h[k]
		No Pseudomonas Risk Factors		
		Hospitalized to ward* **See footnote D (refers to ceftriaxone and ampicillin/sulbactam)**	Ceftriaxone 1gm IV Q24h[d] **OR** Ampicillin/sulbactam 3gm IV Q6h[d,g] **OR** Moxifloxacin 400mg PO/IV Q24h[g]	Moxifloxacin 400mg PO/IV Q24h[g]
		Hospitalized to ICU*	Ceftriaxone 2gm IV Q24h ***plus*** Azithromycin 500mg IV Q24h	Moxifloxacin 400mg IV Q24h[g] ***plus*** Vancomycin IV
		Pseudomonas Risk Factor(s) Present (see list to left)		
		Hospitalized to ward* **See footnote D**	Piperacillin/tazobactam 3.375gm IV Q8h[j] ***or*** Cefepime 1gm IV Q8h[h,j]	Solicit advice from CAUSE delegate
		Hospitalized to ICU*	Piperacillin/tazobactam 3.375gm IV Q8h[j] ***or*** Cefepime 1gm IV Q8h[j] ***plus*** Azithromycin 500mg IV Q24h[h]	Solicit advice from CAUSE delegate

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*If MRSA risk factors are present, consider the addition of vancomycin or linezolid

Footnotes

a. Dosing assumes normal renal function

b. Dosing is equivalent to a Z-pak

c. Consider doxycycline preferentially if the patient has a past history of *C.difficile* infection and/or concern for QTc prolongation. Avoid use in pregnancy.

d. Consider addition of azithromycin or doxycycline (either may be given orally if tolerated) if:
   - Patient is immunocompromised
   - CXR is consistent with atypical infection
   - Atypical pathogens (*M. pneumonia, C. pneumonia, L. pneumophila*) are identified

e. Examples of severe penicillin allergy include anaphylaxis, hives, or other immediate-type hypersensitivity reaction. All indications of these allergies in WakeOne should be independently verified as they are often inaccurate.

f. Moxifloxacin should be reserved for patients with one of these concurrent factors: COPD or prior beta-lactam use in the past 60 days.

g. Select option containing this drug when treating suspected anaerobic infection following macro-aspiration

h. Consider addition of amikacin if:
   - History of positive culture for MDR gram-negative organisms in the past year
   - Anti-pseudomonal coverage in the past 60 days
   - Patient requires ventilatory support due to pneumonia or septic shock

i. Discontinue amikacin if cultures of respiratory specimens, pleural fluid, and/or blood reveal a bacteria susceptible to other antimicrobials. If cultures do not reveal a pathogen, consider short course amikacin (e.g. 3-5 days) if clinical response is adequate or risks of nephrotoxicity are apparent.

j. Extended infusions

k. Consider levofloxacin as an alternative to moxifloxacin in outpatients if there is an insurance advantage. Ciprofloxacin is NOT recommended because of poor activity against *Streptococcus pneumoniae*.

Need antibiotic advice? Page the CAUSE delegate at 6494.

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