

VCH COMMUNITY-ACQUIRED PNEUMONIA (CAP) MANAGEMENT GUIDELINES FOR ADULTS

KEY POINTS:

1. Many “pneumonias” are viral and do **NOT** require antibiotic therapy; consider viral prodrome, epidemiology, and severity of illness before starting antibiotics. (Test and consider treatment for influenza during influenza season).
2. Guidelines provide empiric regimens for most common pathogens; clinicians should always check Gram-stain (within 24 hours) and cultures (at 48 hours) to guide and narrow treatment.
3. *Mycoplasma pneumoniae*, *Chlamydomphila pneumoniae*, and *Legionella pneumophila* are not detected by routine laboratory tests. Consult Medical Microbiology if unusual pathogens are suspected.
4. Patients on recent antibiotic therapy within past 3 months should use a different class of agent.
5. At VCH, 100% of our *Streptococcus pneumoniae* isolates are susceptible to amoxicillin and penicillin.

DEFINITION:

Community-acquired pneumonia (CAP) – pneumonia acquired in community setting in patient with no hospitalization within 14 days of symptom onset **OR** hospitalized less than 4 days prior to onset of symptoms. (Excludes residents of long-term care facilities).

DIAGNOSTICS:

Chest X-ray, CBC, electrolytes, serum creatinine, urea, sputum and blood cultures (if CURB-65 score ≥ 2), and viral swab if clinically indicated.

CURB-65 CAP SEVERITY SCORE (uses five prognostic variables - 1 point for each variable):

Symptoms	Points
• Confusion of new onset (based on mental test; or disorientation to person, place or time)	+1
• Urea >7 mmol/L	+1
• Respiratory rate ≥ 30 breaths/minute	+1
• Blood pressures (BP) (systolic <90 mmHg or diastolic ≤ 60 mmHg)	+1
• Age ≥ 65 years	+1
Total:	CURB-65 Score

CURB-65 Score	Disposition	Empiric Therapy	Alternate Therapy	Duration ^D
0-1 ^A	Home	Doxycycline	[Amoxicillin or cefuroxime]	5-7 d
2	Inpatient	[Amoxicillin-clavulanate or cefuroxime PO/IV] Atypical coverage only if atypicals strongly suspected	Moxifloxacin	Min 5 d ^D
3-5	Inpatient	Ceftriaxone + [doxycycline PO or clarithromycin PO (or azithromycin IV if PO not possible)] ^B	Moxifloxacin ^B	Min 5 d ^D
3-5	ICU	Ceftriaxone ^{B, C} + [doxycycline or clarithromycin (or azithromycin IV if PO not possible)]	Moxifloxacin ^B	Min 5 d ^D

^A Patients with recent antibiotic therapy (within 3 months) or co-morbid risk factors (respiratory disease, diabetes, alcoholism, renal failure or liver disease, CHF, chronic corticosteroid use, malnutrition, hospitalization in past 3 months, HIV, smoking) should receive doxycycline or clarithromycin **AND** high-dose beta-lactam (i.e. amoxicillin 1 g PO TID or amoxicillin-clavulanate 875 mg PO BID).

^B If MRSA is suspected, add vancomycin.

^C Piperacillin-tazobactam should NOT be used empirically as it is an unnecessarily broad-spectrum agent and has less *in vitro* activity against penicillin-resistant *S. pneumoniae* compared to ceftriaxone.

^D Patients should be treated for a minimum of 5 days and until afebrile for 48 hours.

Respiratory Isolation

Patients with fever and cough should be evaluated by the respiratory algorithm for appropriate isolation.
Contact infection control for further information.

Suspected Respiratory Infection

Patients with ≥ 2 symptoms: fever, rigors, new cough +/- sputum production, or chronic cough with colour change in sputum, pleuritic chest pain, shortness of breath;

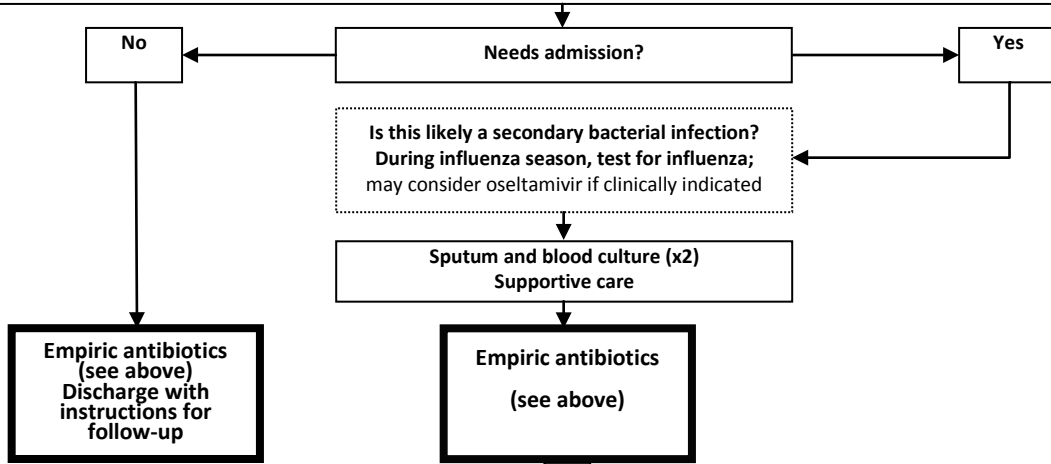
AND

auscultatory findings;

AND

new opacity on chest X-ray (CXR) (not suggestive of other diagnoses (e.g. CHF)).

Patient assessment: history, physical exam, O₂ sat, CXR, CBC, electrolytes, serum creatinine, urea, CURB-65, sputum culture, blood culture (x2).



REASSESSMENT

