Community-Acquired Pneumonia in Non-Pregnant Adults

Key points
- Avoid diagnosing CAP without radiographic evidence of pneumonia
- Outpatient treatment is preferred if CURB-65 score is 0 or 1 (low risk) and medical/social status allow
- Multiple studies suggest short-course antibiotic therapy is as effective as longer courses

Possible signs and symptoms of community-acquired pneumonia (CAP):

1) Cough
2) Shortness of breath
3) Fever
4) Sputum production
5) Pleuritic chest pain
6) Tachycardia
7) Tachypnea
8) Rales, egophany, or fremitus

Clinical picture suggestive of CAP

Yes / **No**

Diagnostics:
- Obtain chest radiograph (CXR)
- Consider complete blood count
- Initial CT scan not recommended unless concern for complication or co-existing illness

Consider alternative etiologies

Infiltrate present on CXR

No infiltrate on CXR*

Does not meet criteria for CAP*

1) 2 or more *CURB-65* criteria?
- ❑ **C**onfusion – new onset disorientation to person, place, or time
- ❑ **U**remia – BUN >20
- ❑ **R**espiratory rate >30
- ❑ **B**lood pressure – systolic <90 OR diastolic <60
- ❑ **65** – age >65

OR

2) Sustained hypoxemia

OR

3) Alternative indication for hospitalization

Yes / **No**

Hospital admission

Outpatient therapy

Concern for drug-resistant *S. pneumoniae*?†
- Use of antibiotics within 3 months
- Uncontrolled diabetes mellitus
- Chronic medical condition with frequent health care contact
- Alcoholism
- Asplenia
- Immunosuppressing conditions or medications

No

Doxycycline 100mg BID for 5 days
OR
Azithromycin 500mg QDay for 3 days

Yes

Levofloxacin 750mg QDay for 5 days**

Alternative: Amoxicillin 1gm TID *plus*
Doxycycline 100mg BID for 5 days

Disclaimer: This is intended only as a guide for evidence-based decision-making; it is not intended to replace clinical judgment. Assess for antibiotic allergies and use alternative agents as appropriate. Suggested antibiotic doses are for normal renal function; adjust for renal impairment when necessary.

*CXR may be negative early in the course of pneumonia; consider a repeat CXR in 24 hours if suspicion for CAP remains high

**Avoid use of fluoroquinolones if risk factors for *M. tuberculosis* present (born outside United States), as may lead to delay in TB diagnosis

†Conditions associated with drug-resistant *Streptococcus pneumoniae* warrant expanded coverage

Reference: Infectious Diseases Society of America/American Thoracic Society Consensus Guidelines on the Management of Community-Acquired Pneumonia in Adults. *Clin Infect Dis* 2007; 44:S27-72