

Community Acquired Pneumonia Care Path

Screening and Diagnosis	
<p>Definition – an infection of the lung parenchyma that is not acquired in a hospital, long-term care facility, or other recent contact with the health care system.</p> <p>Symptoms include fatigue, chills, cough, dyspnea, fever, anorexia, sweats, pleuritic chest pain, hemoptysis, headache, vomiting, myalgia, abdominal pain. In older patients, confusion is more common; fever, chills, sweats, headaches and myalgia are less common.</p>	
Diagnosis	
<ul style="list-style-type: none"> <input type="checkbox"/> Fever 37.8°C/100°F or greater? <input type="checkbox"/> Heart Rate 100 bpm or greater? <input type="checkbox"/> RR 24 or greater? <input type="checkbox"/> SpO2 88% or less? <input type="checkbox"/> Focal rates? 	
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>If patient has 1 or more of the listed symptoms</p> </div> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>If patient has none of the listed symptoms</p> </div> </div>	
<pre> graph TD A["If patient has 1 or more of the listed symptoms"] --> B["CHEST X-RAY"] B --> C["New infiltrate"] B --> D["No new infiltrate"] C --> E["Consider Pneumonia"] D --> F["Consider influenza, bronchitis, Covid-19 or other diagnosis"] G["If patient has none of the listed symptoms"] --> F </pre>	
Consider Pneumonia	
<p style="text-align: center;">CURB-65</p> <ul style="list-style-type: none"> <input type="checkbox"/> Confusion: not oriented to person, place or time <input type="checkbox"/> Uremia: BUN 20 mg/dL or greater <input type="checkbox"/> Respiratory rate: 30 breaths or more per minute <input type="checkbox"/> Blood pressure: SBP less than 90 mm Hg and DBP less than 60 mm Hg <input type="checkbox"/> 65 years or older 	<ul style="list-style-type: none"> ➤ CURB-65 Score of 0-1= Consider for outpatient treatment ➤ CURB-65 Score of 2 or more = Consider for admission

Please note: The Via Christi Health Alliance in Accountable Care, Inc. (the “ACO”) in consultation with its affiliated ACO providers developed these care pathways and guidelines based on the most recent evidenced based medicine data. The ACO is continually researching and updating its care pathways and guidelines to reflect the most recent evidence based standards. This information is intended to provide health professionals with information to improve the quality of care and ultimately lower the cost of such care to the patients they serve. By providing this evidence based information, it is not the intention of the ACO to provide specific medical advice for particular patients. Rather we urge each provider to review this material when consulting and evaluating the treatment options suitable for their patients. The ACO affiliated providers are solely responsible for confirming the accuracy, timeliness, completeness, appropriateness and helpfulness of this material and making all medical, diagnostic or prescription decisions.

Other factors affecting decision to admit:

- SpO2 88% or less
- Multi-lobar infiltrates
- Pleural effusion more than 5 cm on upright lateral chest film
- No caregiver available
- Uncontrolled comorbid illness
- Clinical judgment

Outpatient Treatment

Previously healthy and no antimicrobial use within the last 3 months

Comorbidities (chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), diabetes, malignancy, or renal failure) or antimicrobial use in last 3 months

Antibiotics:

- OR
- Amoxicillin 1 g, three times daily
 - Doxycycline* 100 mg PO twice daily
 - Macrolide (if local pneumococcal resistance is <25%[†])
 - Azithromycin 500 mg on first day then 250 mg daily X 3 days
 - Clarithromycin 500 mg twice daily
 - Clarithromycin ER 1,000 mg daily

Treatment notes:

* If pregnant, or allergic to doxycycline, use azithromycin.

[†] Pneumococcal resistance is <25% in Wichita. Please refer to local antibiogram if outside of Wichita area.

Antibiotics:

- OR
- Doxycycline* 100 mg PO twice daily x 7 days
 - Macrolide (if local pneumococcal resistance is <25%[†])
 - Azithromycin 500 mg on first day then 250 mg daily X 3 days
 - Clarithromycin 500 mg twice daily
 - Clarithromycin ER 1,000 mg daily
- AND
- OR
- Amoxicillin/clavulanate 500 mg/125 mg three times daily
 - Amoxicillin/clavulanate 875 mg/125 mg twice daily, 2,000 mg/125 mg twice daily
 - Cefpodoxime 200 mg twice daily
 - Cefuroxime 500 mg twice daily

For Penicillin allergy, consider quinolone monotherapy:

- Levofloxacin 750 mg daily, moxifloxacin 400 mg daily, or gemifloxacin 320 mg daily

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Outpatient Treatment (cont.)	
<i>Previously healthy and no antimicrobial use within the last 3 months</i>	<i>Comorbidities (chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), diabetes, malignancy, or renal failure) or antimicrobial use in last 3 months</i>
Exams: <ul style="list-style-type: none"> ➤ Follow-up visit or phone call in 48-72 hours ➤ Follow-up visit in 6 weeks 	Exams: <ul style="list-style-type: none"> ➤ Follow-up visit or phone call in 48-72 hours ➤ Follow-up visit in 6 weeks
Labs and Imaging: <ul style="list-style-type: none"> ➤ Repeat chest x-ray at 6 weeks if smoker > 35 years old or for anyone ≥ age 60 	Labs and Imaging: <ul style="list-style-type: none"> ➤ Repeat chest x-ray at 6 weeks if smoker > 35 years old or for anyone ≥ age 60
Immunizations: <i>(at initial treatment or 6-week f/u):</i> <ul style="list-style-type: none"> ➤ Screen for and give influenza immunization ➤ Pneumococcal vaccine if appropriate 	Immunizations: <i>(at initial treatment or 6-week f/u):</i> <ul style="list-style-type: none"> ➤ Screen for and give influenza immunization ➤ Pneumococcal vaccine if appropriate
Patient Engagement: <ul style="list-style-type: none"> ➤ For smokers, provide smoking cessation advice/counseling 	Patient Engagement: <ul style="list-style-type: none"> ➤ For smokers, provide smoking cessation advice/counseling.
Specialist Consult	
When to Refer: <ul style="list-style-type: none"> ➤ Persistent abnormal symptoms and physical signs ➤ Recurrent pneumonia (same lobe or different lobe) ➤ High risk of malignancy (smokers) with non-resolving pneumonia ➤ Known or suspected underlying lung disease 	

References: "Diagnosis and Treatment of Community-Acquired Pneumonia." –*American Thoracic Society Documents.*, n.d. Web.20 July 2021.

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Last Updated: 07/20/2021