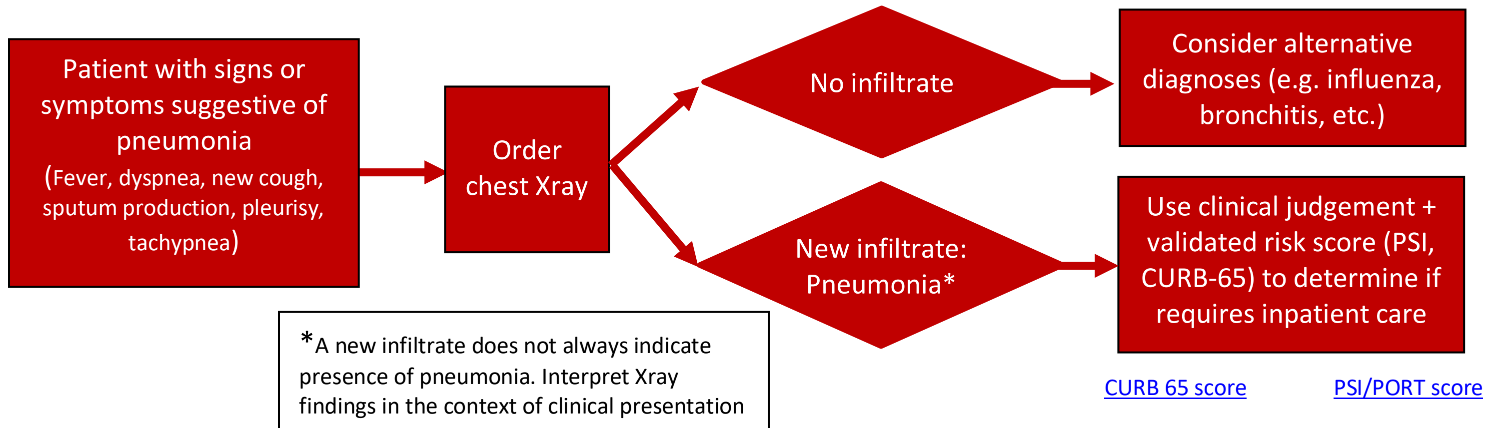
SHC Cough Syndromic
Antimicrobial Selection Guidelines



Treatment, Outpatient (ED Discharge, Urgent Care, Primary Care)

- When appropriate, assess for influenza and/or COVID-19 (see Influenza Guidelines; see COVID guidelines).
- Respiratory and blood cultures are not routinely indicated for outpatient CAP
- Procalcitonin not thought to be helpful in ambulatory settings. Negative procalcitonin should not be used to withhold antibiotics at diagnosis (see Procalcitonin Guide)
- Common bacterial pathogens: *Streptococcus pneumoniae, Haemophilus influenzae, Moraxella catarrhalis, Chlamydia pneumoniae, Mycoplasma pneumoniae*

Table 1. Outpatient Rx: Community Acquired Pneumonia Treatment

Risk factors	Preferred Antibiotic Regimen	Alternative Antibiotic Regimen	Duration
No comorbidities (below) No risk factors for MRSA or *Pseudomonas aeruginosa*[a]	Amoxicillin 1000 mg PO TID	Cefpodoxime 200 mg PO BID[b] **OR** Levofloxacin 750 mg PO daily[c]	5 days
Presence of comorbidities, including: Chronic heart, lung, liver, or renal disease, Diabetes, Alcoholism, Malignancy, Asplenia	Amoxicillin/Clavulanate 875/125 mg PO BID **AND** Azithromycin 500 mg PO x 1 on first day followed by 250 mg PO daily on days 2-5[d]	Cefpodoxime 200 mg PO BID[b] **AND** Azithromycin 500 mg PO x 1 on first day followed by 250 mg PO daily on days 2-5[d] **OR** Levofloxacin 750 mg PO daily[c]	5 days

[a] No history of hospitalization AND receipt of IV antibiotics in last 90 days and no prior respiratory isolation of MRSA or *Pseudomonas aeruginosa*
[b] Cefpodoxime may be substituted with Cefuroxime 500 mg PO BID or cefdinir 300 mg PO BID
[c] Levofloxacin may be substituted with Moxifloxacin 400 mg PO daily
[d] Azithromycin dose can also be 500 mg PO daily x 3 doses or may be substituted with Doxycycline 100 mg PO BID

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Table 2. Other causes of cough for which antibiotics may be justified

Diagnosis	Clinical findings	Antibiotic and duration
Acute Exacerbation of COPD	Pts with 3 cardinal symptoms: increased dyspnea, increased sputum volume or viscosity, increased sputum purulence or 2 cardinal symptoms if increased sputum purulence is one of them. *Mild exacerbation: 0-1 cardinal symptom *Moderate-severe exacerbation: 2-3 cardinal symptoms Patients with moderate to severe exacerbations usually treated with antibiotics. Please refer to the GOLD guidelines for the non-antibiotic management of AECOPD	Azithromycin[a] x5 days
Pertussis	Requires - High clinical suspicion (e.g., prolonged symptoms, outbreak, unvaccinated) - Microbiologic confirmation – NP PCR preferred within 3 weeks of cough onset Abx only warranted if started <3 weeks from symptom onset. Antibiotics will not alter the course of the illness if diagnosis made late.	Azithromycin[a] x 5 days **OR** TMP/SMX[b] x 14 days

[a]Azithromycin 500 mg PO x 1 on first day followed by 250 mg PO daily on days 2-5
[b]TMP/SMX 1 DS PO BID per day in 2 divided doses X 14 days

Table 3. Antimicrobial Drug Dosing in Renal Impairment

Route	Antimicrobial Drug	Dosage Regimen in Renal Impairment (Creatinine Clearance*)			
		>50 ml/min	30-50 ml/min	10-29 ml/min	<10 ml/min**
Oral	Amoxicillin	1000 mg PO TID		500 mg PO BID	500 mg PO daily
	Amoxicillin/ Clavulanate	875/125 mg PO BID		500/125 mg POBID	500/125 mg PO daily
	Cefdinir	300 mg PO BID		CrCl <30 mL/min 300 mg once daily***	
	Cefpodoxime	200 mg PO BID		200 mg PO daily	
	Cefuroxime	500 mg PO BID		500 mg PO daily	
	Levofloxacin	750 mg PO daily	20-49 ml/min: 750 mg PO q48H <20 ml/min: 750 mg PO x 1 then 500 mg PO q48H		

*Creatinine clearance (CrCl) is calculated via the Cockcroft-Gault method

**For drug dosing in hemodialysis, please refer to the SHC Antimicrobial Dosing Reference Guide

***Hemodialysis: 300 mg initial dose, followed by 300 mg 3 times per week post dialysis on dialysis days, with an additional 300 mg dose 48 hours into each 72-hour interdialytic period. For peritoneal dialysis 300 mg every 48 hours

References:

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