

Alaska Antimicrobial Stewardship Collaborative (A2SC) Adult Ambulatory Community-Acquired Pneumonia (CAP) Treatment Guideline

Common Etiologies

Bacterial: *S. pneumoniae*, *H. influenzae*, *Chlamydia pneumoniae*, *Mycoplasma pneumoniae*, *M. catarrhalis*

Respiratory viruses: influenza A & B, adenovirus, respiratory syncytial virus, parainfluenza, COVID-19

Diagnostic Criteria Tools

Pneumonia Severity Index (PSI) Scoring Tool

Demographics	Comorbidities	Physical Exam/Vitals	Labs/Imaging
<ul style="list-style-type: none"> Age (1 point per year) -Male (Age) -Female (Age -10) Nursing home residency +10 	<ul style="list-style-type: none"> Neoplasia +30 Liver disease +20 Heart Failure +10 Cerebrovascular disease +10 Renal disease +10 	<ul style="list-style-type: none"> Confusion +20 Resp rate >30 +20 SBP <90 +20 Temperature <35C or >40C +15 HR >125 bpm +15 	<ul style="list-style-type: none"> Arterial pH <7.35 +30 BUN >30mg/dL +20 Sodium <130 +20 Glucose >250 +10 Hematocrit <30% +10 Pleural Effusion +10 PaO2 <60 +10

Risk Class (Points)	Mortality (%)	Recommended site of care
I (<50)	0.1	Outpatient
II (51-70)	0.6	Outpatient
III (71-90)	2.8	Outpatient or brief inpatient
IV (91-130)	8.2	Inpatient
V (>130)	29.2	Inpatient

Symptoms

- Productive cough
- Chest pain
- Dyspnea/Shortness of breath
- Diminished breath sounds
- Crackles not cleared with coughing
- Abdominal pain
- +/- Fever

Testing/Imaging

- Chest x-ray
 - Pulse Oximetry
- PCR respiratory pathogen panel testing is discouraged in the ambulatory setting.
- If concern for viral respiratory illnesses, influenza or COVID PCR can be ordered

Duration of Therapy

- Typically healthy, no structural lung disease: **5 days**
- Moderately immunocompromised, suspected or proven MRSA or *P. aeruginosa*, or moderate structural lung disease (ie. diabetes, asplenia): **7 days**

Antibiotic Selection

Preferred Treatment

Alternatives

Azithromycin monotherapy is no longer recommended in any circumstance for treatment of community-acquired pneumonia due to local resistance rates >25%.

No comorbidities or risk factors for MRSA or *Pseudomonas aeruginosa*

- **Amoxicillin 1gm PO TID x5-7 days**

- **Doxycycline 100mg PO BID x5-7 days**

Comorbidities present*

- Comorbidities including chronic heart, lung, liver, or renal disease; diabetes mellitus; alcoholism; malignancy; asplenia

- **Amoxicillin/Clavulanate 875mg/125mg PO BID x 5-7 days PLUS**
- **Azithromycin 500mg PO daily x 3 days**

Non-anaphylactic PCN allergy:

- **Cefuroxime 500mg PO BID x 5-7 days PLUS**
- **Azithromycin 500mg PO daily x 3 days**

Anaphylactic PCN allergy:

- **Levofloxacin 750mg PO daily x 5 days**

Risk factors for MRSA or *Pseudomonas aeruginosa*

- Prior respiratory isolation of MRSA or *P. aeruginosa*; OR
- Recent hospitalization AND receipt of parenteral antibiotics in previous 90 days

- **Treatment should be based on previous culture & susceptibility, IV antimicrobials may be required**

CONSIDERATIONS

- *Consider additional **Amoxicillin 1g** BID in addition to **Augmentin** for CAP complicated by empyema, asplenia or *Strep pneumoniae* PenG MIC 2-4
- For patient diagnosed with influenza, it is recommended to also treat with anti-influenza agents; most benefit is seen if started within 48 hours of symptom onset