Inclusion Criteria
Suspected community-acquired pneumonia in children greater than 3 months to 18 years of age.

Provider Assessment

Sepsis Pathway

Mild Pneumonia Criteria
1
- Normal to Mild WOB
- Oxygen Saturations ≥ 90% RT

Moderate/Severe Pneumonia Criteria
2
- Moderate-to-severe retractions
- Grunting or nasal flaring
- Altered mental status or lethargy
- Oxygen saturations persistently < 90% on room air
- Known moderate-to-large effusion, empyema, or necrotizing changes
- Failure of outpatient antibiotic therapy (No improvement in 48-72 hours on appropriate therapy OR significant worsening on appropriate therapy)

Severe/ PICU Criteria
3
- FiO2 ≥ 0.5
- Sepsis
- Impending respiratory failure
- Altered mental status

Mild Pneumonia

Testing
- Consider Chest X-Ray when diagnosis uncertain

Moderate-Severe Pneumonia

Testing
- Obtain 2-view Chest X-ray (if not previously performed)
- P/I + NS Bolus
- Blood culture, CRP, ESR, CBC with diffuse toxic appearing or concern for complicated pneumonia.

Meets Criteria for Outpatient Management?
Criteria:
- Able to tolerate oral antibiotics
- Close outpatient follow-up ensured
- Normal hydration

Yes

Oral Antibiotic Management:
First Line Antibiotic: High-Dose Amoxicillin for TOTAL 7-10 days 90 mg/kg/day divided BID or TID | Max dose 3.5 gm per day
(Refer to Addendum 1 for antibiotic guidance)

Follow-up:
48-72 hours (sooner if worsening condition)

No

Initiate Empirc Antibiotic Therapy:
First Line Antibiotic: Ampicillin (Refer to Addendum 1 for antibiotic guidance)

Obtain 2-view Chest X-ray (if not previously performed)

Yes

No

Meets PICU Criteria?

Yes

PICU consult; Manage OFF PATHWAY (Refer to Addendum 1 for antibiotic guidance)

No

DISCHARGE

Meets PICU Criteria?

Yes

ADMIT to Floor

No

Complicated Pneumonia Guideline
For questions concerning this pathway, Click Here
Last Updated April 26, 2019
Managing Community-Acquired Pneumonia Inpatient Pathway
Evidence Based Outcome Center

**Inclusion Criteria**
Suspected community-acquired pneumonia in children greater than 3 months to 18 years of age.

**Assessment of Respiratory Severity**
Are any of the following signs or symptoms present?
- Moderate-to-severe retractions
- Grunting or nasal flaring
- Altered mental status or lethargy
- Oxygen saturations persistently < 90% on room air
- Known moderate-to-large effusion, empyema, or necrotizing changes
- Failure of outpatient antibiotic therapy
- Sepsis

**EXCLUSION CRITERIA**
- Cystic Fibrosis
- Chronic lung disease
- Immunodeficiency
- Immunosuppression
- Moderate to large or complex effusions
- Lung abscess or pneumatocele
- Sickle Cell Disease
- History of feeding difficulties or aspiration
- Chronic co-morbidities
- Tracheostomy
- If Suspected Viral Etiology and no suspicion of bacterial coinfection

**Criteria**
- Meets Criteria for Outpatient Management

- **Instruct to follow up in 48-72 hours**

- **Provide prescription for antimicrobial therapy to complete TOTAL 7-10 day course**
  (Refer to Addendum 1 for antibiotic guidance)

**Meets PICU criteria**

**PICU consult; Manage OFF PATHWAY**
(Refer to Addendum 1 for antibiotic guidance)

- 2-view Chest X-ray
- Rapid testing for RSV & Influenza
- Blood culture, CBC with diff, sputum cx (if able), CRP, ESR
- Additional blood work as indicated by patient condition

**NO**

**YES**

**Consider rapid testing for RSV & Influenza if it will change medical management**

**Initiate Empiric Antibiotic Therapy:**
- First Line Antibiotic: Amoxicillin
  (Refer to Addendum 1 for antibiotic guidance)

- Administer oxygen to keep O2 saturations ≥90%
- IVF as needed (isotonic preferred)

**Consultation with an Infectious Disease specialist**

**DISCHARGE**

**NO**

**YES**

**Consider Infectious Disease consult; Manage OFF PATHWAY**

**Responding?**

**YES**

**NO**

**Order Chest X-ray**

**Pleuritic Effusion?**

- Moderate to large
- Small but not complicated

**Continue current therapy; transition to oral therapy as able**

**Responding?**

**YES**

**NO**

**If not recently obtained CONSIDER testing:**
- 2-view Chest X-ray
- Rapid testing for RSV & Influenza
- Blood culture, CBC with diff, sputum cx (if able), CRP, ESR
- Additional blood work as indicated by patient condition

**Alert**

**Patients with clinical deterioration should be Managed OFF-Pathway using clinical judgment.**

**Deterioration is defined as decline in cardiovascular status, increase in fever pattern, or increase in oxygen requirement.**

**Sepsis Pathway**

**Sepsis**

**NO**

**YES**

**Influenza**

**Sickles Cell Disease**

**Acquired Pneumonia**

**Failure of outpatient antibiotic therapy**

**Known moderate to large or complex effusions**

**Necrotizing Changes**

**Known S. pneumoniae, H. influenzae, atypicals, or S. aureus**

**Complicated Pneumonia Guideline**

**Therapy**

No improvement in 48-72 hours on appropriate therapy OR significant worsening on appropriate therapy

**Responding**

Improvement in clinical signs including fever, oxygen saturation, and respiratory rate within 48-72 hours

**PICU Criteria**
- FiO2 ≥ 0.5
- Sepsis
- Impending respiratory failure
- Altered mental status

For questions concerning this pathway, Click Here

Last Updated April 26, 2019