

## Pediatric Community Acquired Pneumonia Pathway



#### **Inclusion Criteria**

Children ≥ 60 days to 18 years old with suspected/proven community-acquired pneumonia managed in the outpatient, emergency department, inpatient, or intensive care setting

#### **Exclusion Criteria**

- Children < 60 days old
- Tracheostomy or ventilator dependent
- Immunocompromised or immunosuppressed
- Cystic fibrosis or other chronic lung disease (except asthma)
- Concern for aspiration
- Hospital or institutional-acquired pneumonia

# Severity & Complexity Definitions

#### Mild:

- No retractions, grunting, nasal flaring, apnea or
- Pulse oximetry > 90% in room air or
- Non-toxic appearance

#### **Moderate:**

- Moderate dyspnea, including: retractions, grunting, nasal flaring, apnea or
- Pulse oximetry < 90% in room air *or*
- Need for HFNC or other non-invasive mechanical ventilation not meeting severe criteria

#### Severe:

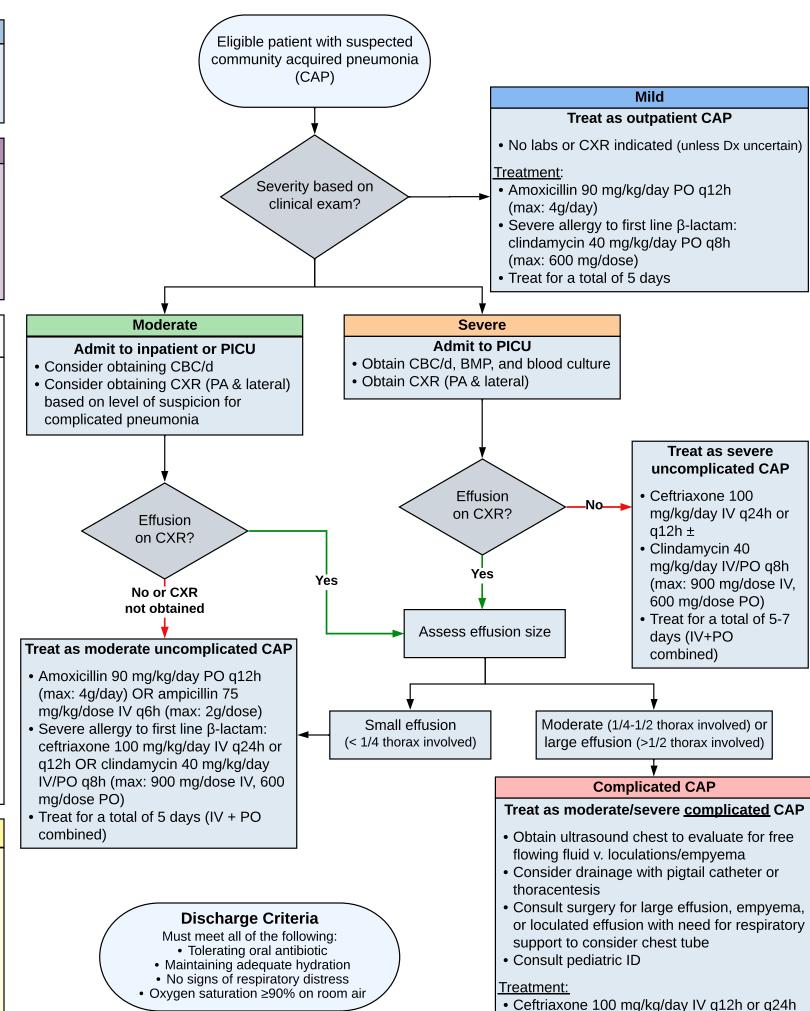
- Hypoxemic or hypercarbic respiratory failure requiring invasive mechanical ventilation or non-invasive mechanical ventilation with high (e.g., > 40%) or escalating FiO2 requirement or
- Systemic signs of inadequate perfusion (change in mental status, hemodynamic instability)

#### **Complicated CAP:**

- Moderate effusion (1/4-1/2 of thorax involved) or large effusion (>1/2 thorax involved) or
- Empyema, pneumothorax, lung abscess, bronchopleural fistula, or necrotizing pneumonia

### **Additional Antibiotic Info**

- Consider using nasal MRSA PCR to determine ability to discontinue MRSA coverage
- Clindamycin is preferred for MRSA coverage in uncomplicated CAP. At Duke, 88% of MRSA isolates are sensitive to clindamycin.
- Transition to oral antibiotics:
- If on Ampicillin or CTX → amoxicillin 90 mg/kg/day q12h (max 4g/day)
- If on CTX & severe allergy to first line  $\beta$ -lactam  $\rightarrow$  clindamycin 40 mg/kg/day q8h (max 600 mg/dose)
- If concerned for atypical pneumonia, ≥5y, and no improvement after 48-72h of therapy, may consider azithromycin 10 mg/kg PO once (max: 500 mg/day) on day 1, then 5 mg/kg PO q24h (max: 250 mg/day) on days 2-5



AND vancomycin dosed by levels to achieve

clindamycin 40 mg/kg/day IV q8h (max: 900

mg/kg/dose IV/PO q12h, ≥5y: 10 mg/kg/dose

mg/dose IV) AND levofloxacin 6m-4y: 10

Duration dependent on clinical course and

goal trough of 15-20 mcg/mL

Severe allergy to first line β-lactam:

IV/PO q24h (max: 750 mg/dose)

culture data