Outpatient Management of Pediatric Community-Acquired Pneumonia

CHOC Children's

Inclusion Criteria: Previously healthy children > 6 months with presumed bacterial pneumonia
Exclusion Criteria: < 6 months of age (requires hospitalization), respiratory distress or oxygen requirement (requires hospitalization), chronic conditions (i.e. cystic fibrosis, immunodeficiency, living in chronic care facility), concern for aspiration pneumonia, persistence of neonatal cardiac or pulmonary disorder, inpatient status.

Clinical Findings Suggestive of Pneumonia

- Tachypnea: RR > 50 - 2-12 mos, > 40 - 1-5 yrs, > 20, 6 yrs and above
- Retractions/increased work of breathing
- Localized abnormal breath sounds (i.e. crackles/rales/tubular breath sounds). Diffuse findings (including wheezing) more suggestive of atypical or viral etiology.
- Fever

Diagnostic Testing

For patients not responding to previous therapy, concern for empyema, or when contemplating hospital admission:

- CXR – 2 view
- Blood culture
- CBC, CRP, ESR
- RSV, rapid Influenza A/B, if viral etiology expected

Pulse oximetry spot check, notify MD of sats < 93%

Antibiotics

- Amoxicillin 45 mg/kg po BID, wt. < 45 kg (90 mg/kg/day)
- Amoxicillin 2 grams po BID x 10 days po BID, wt. > 45 kg
- If temperature < 39 and atypical organism suspected: Azithromycin 10 mg/kg po day 1, then 5mg/kg po day 2-5
- If using azithromycin for penicillin allergic patient, increase duration of therapy to 7 days
- If labs/blood culture/CXR being ordered and patient being considered for admission, give ceftriaxone 50 mg/kg IM x 1, MAX 2 grams wt. > 40 kg

Recommendations/Considerations

- Nov-Mar, < 2 yrs old, with diffuse crackles or wheezing on lung exam, consider viral etiology. If high fever, consider influenza testing and treatment.
- Routine CXRs are not necessary to confirm the diagnosis of suspected community-acquired pneumonia in healthy children with mild disease. CXR findings do not consistently alter patient management and they do not differentiate viral from bacterial etiology. Typical findings may be absent in early disease or in patients with significant dehydration.
- Viral etiologies of CAP have been documented in up to 80% of children younger than 2 years of age

Criteria for hospitalization:

- Respiratory distress
- Sustained O2 sat < 90%
- < 6 months of age with suspected bacterial pneumonia
- Children with suspected or documented CAP caused by a pathogen with increased virulence such as MRSA
- Children and infants for whom there is a concern about careful observation at home, who are unable to comply with therapy, or are unable to be followed up should be hospitalized

Approved by Evidence Based Medicine Committee 5/18/16, revised 4/4/17

References
Outpatient Community Acquired Pneumonia Care Guideline

Bradley JS, Byington CL, et al. The Management of Community-Acquired Pneumonia in Infants and Children Older Than 3 Months of Age: Clinical Practice Guidelines by the Pediatric Infectious Diseases Society of America. Clinical Infectious Diseases July 2011, p e1-e52.

Harris M, Clark J, et al. Guidelines for the Management of Community Acquired Pneumonia in Children: Update 2011. British Thoracic Society. Thorax 2011; 66: ii1-ii23.