

# Randall Children's Hospital

## Co-Management and Referral Guidelines Community-Acquired Pneumonia (CAP) Randall Children's Infectious Diseases

To refer, contact **Randall Children's Hospital  
Emergency Department**  
Phone: **503-276-9191**

### Introduction

- Up to 10–15 percent of children with a respiratory infection have community-acquired pneumonia (CAP).
- Nearly all children with CAP will have increased work of breathing (tachypnea at rest, retractions, accessory muscle use, nasal flaring, etc.).
- Common pathogens depend on age:
  - Neonates/young infants: group B Strep, *E. coli*, *Chlamydia trachomatis*
  - Older infants and pre-schoolers: viral pneumonia
  - Outside early infancy: *S. pneumoniae*, *S. aureus* and group A strep
  - School aged/adolescent children: *Mycoplasma* or *Chlamydia pneumoniae*
- With the success of the *Hemophilus influenzae* type B and 13 valent pneumococcal vaccines, the rates of bacterial pneumonia have dropped significantly.
- New molecular testing has revealed that co-infection with a virus and bacteria or more than one virus is not uncommon.

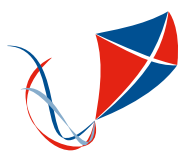
### Evaluation and Management

- Non-toxic/non-hypoxemic outpatient children with pneumonia do not need to have a chest radiograph or laboratory tests performed.
- Antibiotics are generally not recommended for pre-schoolers well enough to be managed as outpatients due to the high rate of viral infections.
- Amoxicillin 90 mg/kg/day divided every 12 hours is the first-line outpatient antibiotic for appropriately immunized children outside the newborn period suspected of having a bacterial CAP.
- A macrolide antibiotic (usually azithromycin 10 mg/kg/day on day 1, then 5 mg/kg/day x 4 more days) should be considered for school-aged children suspected of having infection with *M.* or *C. pneumoniae* (though many of these infections do not require treatment).
- Sicker children require consideration of laboratory tests, radiographs and broader therapy including anti-influenza treatment/staphylococcal coverage as indicated.

### When to refer

- Children should be referred to the Emergency Department for consideration of admission to hospital if they have:
  - Sustained hypoxemia (< 90 percent by pulse oximeter); or
  - Significant work of breathing not improved by nasal suctioning/albuterol; or
  - Are not drinking well enough to remain hydrated.

(continued)



## Referral process

Contact **Randall Children's Hospital Emergency Department: 503-276-9191**

Alert the staff regarding a patient being sent to the ED for stabilization/consideration of admission for community-acquired pneumonia.

Advise the Emergency Department staff if it is your strong preference for admission after stabilization.

### **Randall Children's Infectious Diseases**

Phone: **503-413-3506**

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## Additional Resources

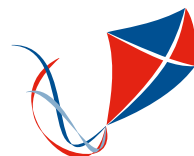
Infectious Diseases Society of America (IDSA) Pediatric Community-Acquired Pneumonia Guidelines:

[http://www.idsociety.org/uploadedFiles/IDSA/Guidelines-Patient\\_Care/PDF\\_Library/2011%20CAP%20in%20Children.pdf](http://www.idsociety.org/uploadedFiles/IDSA/Guidelines-Patient_Care/PDF_Library/2011%20CAP%20in%20Children.pdf)

For tuberculosis questions or advice any time, email Ann Loeffler, M.D., at [aloeffle@lhs.org](mailto:aloeffle@lhs.org) and simultaneously [currytbcenter@ucsf.edu](mailto:currytbcenter@ucsf.edu).

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Find this and other co-management/referral guidelines online at: [www.legacyhealth.org/randallguidelines](http://www.legacyhealth.org/randallguidelines)



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