Community Acquired Pneumonia

Definition

Acute respiratory infection acquired in the community setting. Symptoms may include fever, chills, cough with sputum production, chest pain, and shortness of breath. Diagnosis requires **both** characteristic symptoms as well as radiographic (chest x-ray or CT scan) evidence of airspace disease.

Common Pathogens

Streptococcus pneumoniae
Mycoplasma pneumoniae
Haemophilus influenza
Influenza and other respiratory viruses

Risk Stratification

- Use clinical judgement OR a scoring system such as CRB-65 or PSI/PORT Score to decide if the patient can be treated in the outpatient setting or if hospitalization is required.
- If the patient is at risk for antimicrobial-resistant organisms (e.g. recent prolonged intravenous antimicrobial therapy or structural lung disease), consider expert advice.

Antibiotic Therapy

Outpatient Therapy‡		Amoxicillin- clavulanate 875/125 mg BID x 5 to 7 days
Inpatient Therapy – Non-ICU‡	**PO** **IV**	Amoxicillin- clavulanate 875/125 mg BID x 5 to 7 days Ceftriaxone 1 g q24h with step-down to oral therapy (e.g. Amoxicillin-clavulanate) once clinical stability achieved *If anaphylaxis to beta-lactams* Levofloxacin 750 mg PO/IV q24h x 5 days
Inpatient Therapy – ICU		Ceftriaxone 1 g IV q24h + Azithromycin 500mg IV/PO q24h *If anaphylaxis to beta-lactams* Levofloxacin 750 mg PO/IV q24h x 5 days

‡There is insufficient evidence to support the routine coverage of atypical pathogens (e.g. *Mycoplasma, Chlamydophila* and *Legionella* sp.) in both the outpatient setting and non-ICU hospitalized patients. Therefore, in absence of clinical suspicion of a Legionella infection, the addition of a macrolide is not routinely recommended.

Duration

5 to 7 days

Special Considerations

- Legionella pneumonia is most often observed during warmer months (May-October), and tends to be severe (~75% of recognized cases require ICU care). The addition of Azithromycin 500mg PO/IV daily should be considered if patients are not responding to beta-lactam antibiotics at 48 hours, or if Legionella is suspected due to the presence of certain clinical signs (e.g. Hyponatremia, prominent gastrointestinal symptoms, altered level of consciousness, elevated liver enzymes, purulent sputum with no organisms visible on gram stain).
- Patients with significant immunocompromise, such as recent or current use of immunomodulating drugs (e.g. high-dose corticosteroids, cyclosporine, infliximab, etanercept, etc.), HIV with low (known or suspected) CD4 count, Solid organ transplantation, Stem cell transplantation or chemotherapy-associated neutropenia), may require broader empiric antibiotic therapy, and so the above treatment guidelines do **NOT** apply to this population. Consider expert advice (e.g. ID Consultation)