



Community Acquired Pneumonia

Definition:

- Community-acquired pneumonia (CAP) is defined as a lower respiratory tract infection not acquired in a hospital or a long-term care facility.
- Typical pneumonia usually is caused by bacteria such as *Streptococcus pneumoniae* and *Hemophilus influenzae*.
- Pneumonia can also be caused by atypical bacteria (such as *Mycoplasma*, *Chlamydia*, *Legionella*), viruses (adenovirus and influenza virus), and other unidentified microorganisms.

Diagnosis:

- Symptoms include cough, fever, chills, fatigue, shallow or difficult breathing, and pleuritic chest pain.
- Chest x-rays, blood and sputum samples can be used to aid in diagnosis.

Risk Factors:

- HIV or immunocompromised, recent antibiotic therapy or resistance to antibiotics, asthma, cerebrovascular disease, chronic obstructive pulmonary disease, chronic renal failure, congestive heart failure, diabetes, liver disease, neoplastic disease.
- CAP is particularly common in elderly adults, with an incidence rate in the United States of 280 cases per 10,000 individuals older than 65 years.

At Issue:

- Pneumonia is the sixth leading cause of death in the U.S.
- Currently, CDC and IDSA guidelines list macrolides as first-line therapy for CAP.

- Rates of penicillin and macrolide resistance are currently approaching 60% and 40%, respectively.
- Marketed macrolides have recently gone off-patent, which is likely to lead to overuse and exacerbates resistance issue.

Economics:

- An estimated 5.6 million cases of CAP occur annually in the United States.
- The estimated total annual cost of health care for CAP in the United States is \$8.4 billion, with prescribed antibiotics accounting for ~\$2 billion annually.
- Macrolides currently make up ~60% of U.S. sales related to CAP.
- Cost of hospitalized CAP patients unresponsive to penicillins or macrolides is \$15,000 per patient vs. \$200 office visit with effective prescription.

For more information, please visit to www.advancedlifesciences.com