Review: antibiotics active against atypical pathogens do not improve community acquired pneumonia more than β lactam antibiotics


Clinical impact ratings GP/FP/Primary care ★★★★★☆ Internal medicine ★★★★★☆ Infectious disease ★★★★★☆

In patients with community acquired pneumonia (CAP), how do antibiotics active against atypical pathogens (AAAAPs) compare with β lactam antibiotics for effectiveness?

**CONCLUSION**

In patients with community acquired pneumonia, antibiotics active against atypical pathogens and β lactam antibiotics do not differ for achieving clinical cure or improvement.

**Commentary**

There are 2 ways in which one can interpret the results of the meta-analysis by Mills et al. One is that patients with pneumonia of mild to moderate severity (apart from those with Legionnaire’s disease) do not need to receive AAAAPs (mainly Mycoplasma pneumoniae and Chlamydia pneumoniae) because the host response is sufficient to contain this infection. The second interpretation is that the wrong outcome measures were used in the clinical trials. Time to resolution of symptoms and time to return to work are more likely to be responsive to the intervention in patients with very low mortality caused by pneumonia. I suspect that both interpretations may be correct.

2 previous trials suggest a shorter time to resolution of fever in patients with M pneumoniae and Coxiella burnetii infection treated with AAAAPs. Since such outcomes were not addressed in the review, the question of benefit with AAAAPs remains unresolved. Despite its limitations, this review confirms the findings of observational studies dating back to the original outbreak of Legionnaire’s disease that indicated that treatment of Legionnaire’s disease with AAAAPs improved outcomes. The issue of whether AAAAPs offer an advantage over β lactam antibiotics in patients with CAP needs to be addressed in an RCT using appropriate outcomes.

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