

## CLINICAL IMAGES

## Community-acquired pneumonia

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See also practice article by Leis and Gold on page 559 and at [www.cmaj.ca/lookup/doi/10.1503/cmaj.111143](http://www.cmaj.ca/lookup/doi/10.1503/cmaj.111143)**Competing interests:** None declared.

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A 39-year-old man presented with fever (38.7°C), cough and right chest pain on inspiration. His blood pressure was 125/75 mm Hg, heart rate was 88 beats/min, respiration was 20 breaths/min and oxygen saturation on room air was 94%. Physical examination was remarkable only for crackles over the right upper lung field. Results of blood tests showed an elevated leukocyte count of  $16.5$  (normal  $4.0$ – $10.0$ )  $\times 10^9/L$  and were otherwise normal. Urinary testing for *Legionella pneumophila* and *Streptococcus pneumoniae* antigens was negative. Chest radiography showed pneumonia in the right upper lobe (Figure 1). Because the patient was at low risk for death (class I on the Pneumonia Severity Index),<sup>1</sup> we prescribed oral penicillin and clarithromycin, and discharged the patient home. Follow-up chest radiography one month later showed that the consolidation had resolved (Appendix 1, available at [www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.111256/-DC1](http://www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.111256/-DC1)).

About 4 million instances of community-acquired pneumonia occur in the United States each year. It is one of the most common causes

of death from infectious diseases worldwide.<sup>2</sup> The precise diagnosis continues to be complex; at least 50% of causative pathogens remain unidentified, and all rigorous definitions of pneumonia require the finding of a pulmonary infiltrate on chest radiography.<sup>2</sup> The initial antibiotic regimen should be chosen empirically to cover common typical and atypical pathogens. About 50% of patients with pneumonia can receive treatment outside of the hospital.<sup>2,3</sup> The Pneumonia Severity Index is a validated prediction rule that identifies people with community-acquired pneumonia who are at low risk for death within 30 days of presentation.<sup>1</sup> An alternative scale is the CURB-65, which takes into account confusion, urea level, respiration, blood pressure and age.<sup>4</sup> A general rule of thumb is to admit patients with oxygen saturation under 92%.<sup>5</sup>

## References

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## Helpful resources

- The Pneumonia Severity Index calculator is available online at <http://pda.ahrq.gov/clinic/psi/psicalc.asp>
- CURB-65 is available online at [www.mdcalc.com/curb-65-severity-score-community-acquired-pneumonia](http://www.mdcalc.com/curb-65-severity-score-community-acquired-pneumonia)

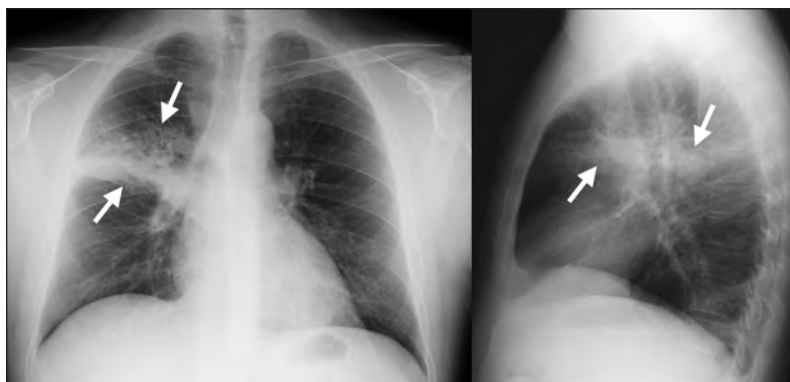


Figure 1: Posteroanterior and lateral radiographs of the chest of a 39-year-old man with fever, cough and pleuritic chest pain showing consolidation in the right upper lobe.