

# ERS/ESICM/ESCMID/ALAT Guidelines for Managing Severe Community- Acquired Pneumonia



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Expert groups\* have developed the first international guidelines for managing severe community-acquired pneumonia (sCAP) with the aim of providing effective treatment and management strategies for adult patients with sCAP. This short review is a partial summary of the guidelines, focusing on the use of PCT to reduce antibiotic therapy duration.

## Recommendation for PCT

- Use of PCT is suggested to shorten the length of antibiotic treatment in patients with sCAP.
- Consider clinical assessment before using PCT to reduce antibiotic treatment duration. If the patient is clinically stable and the duration of antibiotic therapy is between 5-7 days, PCT may not be useful.

## Evidence Overview

- Three RCTs which included ICU-admitted patients were selected as relevant for sCAP, given their inclusion of a high proportion of patients with CAP.
- Median duration of antibiotic treatment days was:
  - 1) 9.5 days in the control group and 6 days in the PCT-guided intervention group ( $p = 0.15$ )<sup>a</sup>
  - 2) 10.5 days in the control group and 5.5 days in the PCT-guided intervention group ( $p = 0.001$ )<sup>b</sup>
  - 3) 9.3 days in the control group and 7.5 days in the PCT-guided group ( $p = 0.001$ )<sup>c</sup>
- Antibiotic treatment duration was significantly shorter in the PCT-guided group. Both hospital and ICU lengths of stay were not different.

## Suggested Research Priorities

- Clinical trials on patients with sCAP to investigate whether using PCT can decrease unnecessary antibiotic use, treatment failure, and complications in cases where bacterial causes are absent.
- RCTs conducted in patients with sCAP and infectious complications, as well as in critical care patients.
- More research to determine how useful biomarkers are based on the cause of sCAP.
- RCTs comparing the effectiveness of specific biomarkers, biomarker combinations, or panels.

**In conclusion**, evidence suggests that using PCT can lower the number of days of antibiotic treatment in patients with sCAP.



*We suggest the use of PCT to reduce the duration of antibiotic treatment in patients with sCAP,*” recommended the study authors.

\* European Respiratory Society (ERS), European Society of Intensive Care Medicine (ESICM), European Society of Clinical Microbiology and Infectious Diseases (ESCMID), and Latin American Thoracic Association (ALAT)

<sup>a</sup> Nobre V, Harbarth S, Graf J-D et al. *Am J Respir Crit Care Med* 2008;177:498–505. <https://doi.org/10.1164/rccm.200708-1238OC>

<sup>b</sup> Bouadma L, Luyt C-E, Tubach F et al. *Lancet* 2010; 375:463–474. [https://doi.org/10.1016/S0140-6736\(09\)61879-1](https://doi.org/10.1016/S0140-6736(09)61879-1)

<sup>c</sup> de Jong E, van Oers JA, Beishuizen A et al. *Lancet Infect Dis* 2016;16:819–827. [https://doi.org/10.1016/S1473-3099\(16\)00053-0](https://doi.org/10.1016/S1473-3099(16)00053-0)