

# VALIDATION OF ANTIBACTERIAL THERAPY DURATION IN PATIENTS WITH SEVERE COMMUNITY-ACQUIRED PNEUMONIA

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## *Abstract*

Questions about the optimal terming of antibiotic therapy (ABT) in patients with severe community acquired pneumonia (CAP) are not completely resolved. Overseas studies suggested that the duration of therapy in patients with severe lower respiratory tract infection could be significantly reduced in cases of serum procalcitonin (PCT) level individual monitoring.

The aim of this study was to validate the duration of ABT in patients with severe CAP under PCT monitoring and compare it with conventional regimens of treatment using retrospective analysis of clinical endpoints in two homogeneous subgroups of patients.

**Results.** Severity of condition of category 4 CAP patients was determined by combination of acute respiratory distress syndrome and systemic inflammatory response, which was confirmed by significant increase of systemic inflammation markers (PCT and C-reactive protein (CRP)). Additional indicators for the assessment of patients with CAP were the severity score, assessed by SMRT-CO scale, and serum level of PCT.

**Conclusion.** Along with clinical (1-2 residual clinical symptoms could still be present) and radiological improvement a 2-fold reduction of patient's serum PCT level could be a stopping criterion for ABT. This approach would significantly shorten the duration of therapy and gain both clinical and economic profit without any loss of effectiveness. Considering slow regression of CRP serum concentration, this parameter is not suitable for making a decision about the end of ABT.

**Key words:** pneumonia, severe course, timing of antibiotic therapy, procalcitonin.

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