

Respiratory infections

Clostridium difficile infection due to pneumonia treatment – mortality risk model.

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INTRODUCTION: One of the most common gastrointestinal infection after antibiotic treatment of community as well as hospital acquired pneumonia is caused by an anaerobic spore Clostridium difficile, which is involved with a high mortality rate.

OBJECTIVES: The aim of this study is to assess the mortality model of Clostridium difficile infection (CDI) in patients treated for pneumonia.

PATIENTS AND METHODS: A retrospective analysis of 217 patients with CDI in the Internal Medicine Ward, Medical University of Warsaw was conducted. To create a mortality risk model in patients treated for pneumonia a logistic regression and a multivariate fractional polynomials (mfp) were performed. Patients' demographics, clinical features and laboratory values were taken under the statistical analysis. To estimate the influence of preceding infection, pneumonia severity scales were included in the study analysis.

RESULTS: In 94 patients treated for pneumonia CDI was diagnosed. The analysis showed two statistically significant ($p < 0,05$) and clinically relevant mortality models including age, leukocyte count, creatinine and urea concentration level, hematocrit, coexisting neoplastic disease, intake of more than one antibiotic, altered mental status, coexisting chronic obstructive pulmonary disease and scoring by CURB – 65 scale.

CONCLUSIONS: Clostridium difficile infection is a common complication after antibiotic therapy. Its severity and mortality depends on several parameters making up for the mortality predicting models, which are crucial in the individual therapy choice.