Background Community-acquired pneumonia is an infectious disease with a major impact on the population, being an important cause of mortality, morbidity and high-cost healthcare worldwide. The gravity of the infection is variable, but some strains can cause severe infections with increased mortality correlated with host-related factors. The treatment of the disease remains empirical, targeting the most likely pathogens commonly involved.

Purpose The study aimed to identify the most common pathogens involved in community-acquired pneumonia in our hospital, to determine the antibiotic-resistant strains and monitor the patient’s evolution in order to identify the main causes of possible treatment failure and increased mortality.

Materials and methods The 1 year study (2017) involved 170 patients hospitalised in the Clinical Emergency Hospital, Bucharest, Romania and diagnosed with community-acquired pneumonia. The study mainly focused on the initiated pharmacotherapy and the situation of prescribing antibiotics: active substances available in the hospital’s pharmacy, their associations and changes due to the bacterial resistance.

Results Most of the patients diagnosed with community-acquired pneumonia had cardiovascular and respiratory comorbidities. The patients received empiric treatment based on the clinical scenario, pathogens involved and also the available antibiotics. Our results showed a higher share of pneumonia among males (52%) rather than females (48%), the death rate having a similar pattern: 51% and 49%, respectively. In 35 cases, the antibiogram revealed the most common pathogenic bacteria that displayed resistance to the most commonly used antibiotics. The hospital pharmacist and the clinician involved in the study reported the use of only one active substance in 50% of the cases, two antibiotics, 31%, three antibiotics, 8% and more than four antibiotics (11%) were administered according to bacterial resistance. Cefoperazone was the most commonly prescribed antibiotic, followed by piperacillin and ceftriaxone.

Conclusions Community-acquired pneumonia is a disease treatable in the early stages if it is correctly diagnosed. E. coli, Pseudomonas spp, S. aureus, A. baumannii and Klebsiella spp. were the most incriminated etiological agents. Still, social-demographic and host-related factors played a critical role in the outcome of the disease and were correlated with some cases of a failed response to treatment and increased mortality.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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