Fund "Nauka" Project № 23012 Resume – Competition-Based Session 2023:
"Inflammatory markers in the clinical course of patients with severe respiratory infections"
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Community-acquired pneumonia is a common respiratory infectious disease. According to the World Health Organization, infections of the lower respiratory tract to which this nosological unit also belongs are the fourth cause of death on a global scale. In 2019, they took 2.6 million lives. Pneumonia is the second most common cause of hospitalization and the most common infectious cause of death. In addition, it is a socially significant disease leading to a large number of hospitalizations, as well as high healthcare costs. When the clinical presentation of the disease is mild, it can be treated on an outpatient basis, in other cases, it requires treatment in an intensive care unit, and determining the appropriate level of care, in addition to early diagnosis and timely treatment, is important to improve outcomes. C-reactive protein and procalcitonin remain the most widely used biomarkers, while interleukin-6 is of particular interest mostly in the scientific literature. However, none of them appears to be ideal, and the search for new biomarkers that will best predict the severity and response to treatment in pneumonia continues to date. The current project aims to investigate the correlation between a new inflammatory marker (serum calprotectin) and the clinical course of the disease in patients over 18 years of age with pneumonia and respiratory failure. The evaluation of this indicator will enrich the current knowledge in the field and could serve in the preparation of new diagnostic and therapeutic algorithms for patients with severe respiratory infections.

Expected results:

1. Collection of data on the course and outcome of severe respiratory infections in Bulgaria;
2. Evaluation of an inflammatory marker serum calprotectin and its role in the clinical practice in patients with respiratory infections;
3. Analysis of the results in the context of the diagnostic and therapeutic approach, with a view risk modification of unwanted fatal and non-fatal incidents.