

# Abstract Submission

## 31. Infectious diseases, supportive care

EHA-1100

### FACTORS CONTRIBUTING TO SEVERE PNEUMONIA IN PATIENTS AGAINST HEMATOLOGICAL MALIGNACIES

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**Background:** According to the World Health Organization, for the period from 2000 to 2012 among the 10 leading causes of death in the world, lower respiratory tract infections took 4th place. In patients with hemoblastomas, the problem of diagnosis and treatment of pneumonia is due to the high incidence, lack of clinical manifestations, severe course, frequent complications and rapid development of fatal consequences.

**Aims:** To determine the factors which cause the severity of pneumonia based on the study of a complex of clinical and laboratory, anamnestic and immunological parameters of patients with severe immunity disorders on a background of oncohematological diseases.

**Methods:** To solve this problem, a computer database was created from the results studies of retrospectively analyzed archival data of 605 cases of hospitalizations and the results of a prospective study of 276 cases of hospitalization of patients with oncohematological diseases in "City Multidisciplinary Clinical Hospital No. 4", Dnipro, Ukraine, 2010-2015.

**Results:** The results of the study proved that the severity of pneumonia and the unfavorable prognosis of the disease were most influenced by factors that can be conventionally grouped into groups: indicators characterizing oncohematological disease (age of the patient ( $\rho = -0.25$ ,  $p < 0.001$ ), the form of oncohematological disease ( $\rho = 0.29$ ,  $p < 0.001$ ); the number of courses of HT (from 8) ( $\rho = 0.33$ ;  $p < 0.001$ ); anemia ( $\rho = 0.61$ ;  $p < 0.001$ ); presence of neutropenia ( $\rho = 0.46$ ,  $p < 0.001$ ); indicators characterizing the inflammatory process in the lungs (Gp - pathogens ( $\rho = 0.48$ ,  $p < 0.001$ ); presence of complications: hemoptysis ( $\rho = 0.36$ ,  $p < 0.001$ ), pleurisy ( $\rho = 0.58$ ,  $p < 0.001$ ), respiratory failure ( $\rho = 0.32$ ,  $p < 0.001$ ); presence of cough ( $\rho = 0.30$ ;  $p < 0.001$ ); wet wheezes ( $\rho = 0.48$ ;  $p < 0.001$ ); ESR ( $\rho = 0.38$ ;  $p < 0.001$ )) and indicators of immune reactivity, characterizing the degree of immunodeficiency.

**Summary/Conclusion:** When the overall variance was determined, which determines the factors that cause the severity of pneumonia and the occurrence of an unfavorable prognosis in patients with oncohematological diseases, the contribution of the degree of immunodeficiency was about 52%.

**Keywords:** Hematological malignancy, Immunodeficiency, Pulmonary