

# ASSESSMENT OF ANTIBIOTIC SENSITIVITY *K.pneumonia* IN COVID-19 PATIENTS

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*K.pneumoniae* is one of the most relevant in the clinic of nosocomial infections and represents one of the most serious problems. The problem lies not only in the frequency of detection of the pathogen, they are increasingly characterized by high resistance to the main antibacterial drugs. Although it is found in normal flora of the mouth, skin and intestines, when aspirated, it can cause destructive changes in the lungs of humans and animals, especially in the alveoli, resulting in a jelly-like sputum with blood, brownish or yellow in color.

*K.pneumoniae* are typical opportunistic pathogens that cause the infectious process in mostly immunocompromised patients. In a hospital setting, opportunistic microorganisms can be found in ventilation and humidification systems, including ventilators.

Patients with COVID-19 who are on mechanical ventilation are mainly at increased risk for the development of nosocomial infections. At the same time, opportunistic microorganisms are the most often etiological agent. Among them, *K.pneumoniae*, *A.baumannii*, *P. aeruginosa* and other microorganisms are often found.

*Klebsiella* are often antibiotic resistant. They, with the ability to produce extended spectrum beta-lactamases, are resistant to many beta-lactam antibiotics, except carbapenems. Therefore, the assessment of antibiotic sensitivity of *K.pneumoniae* in patients with COVID-19 is an urgent problem.

**Materials and methods.** We examined 25 sputum samples from patients with COVID-19 (positive diagnosis made by PCR) who were in intensive care units. Identification of the obtained cultures of microorganisms and sensitivity to antibiotics in the isolated strains was carried out on ViTEK2 Compact and by the method of disk diffusion.

The composition of the microbiota isolated from sputum from 9 out of 25 isolates was isolated by *K. pneumoniae* in association with *S. aureus*, *A. baumannii*, *C. albicans*, and *P. aeruginosa*. The results of determining the sensitivity to antibiotics in the isolated strains of *K. pneumoniae* were identified: The isolated strains of *K. pneumoniae* are resistant to ampicillin, amoxicillin, ceftazidime, mepenen, imepenem, they were sensitive to colistin and some strains to ceftriaxone.

**Discussions.** Colonization of the mucous membranes of the respiratory tract of patients with COVID-19, who are in intensive care and intensive care units, occurs by nosocomial pathogens, among which *K.pneumoniae* dominates with an increase in resistance to beta-lactam antibiotics. Therefore, the use of these antibiotics can reduce the effectiveness of treatment. Therefore, the assessment of antibiotic sensitivity of *K.pneumoniae* in patients with COVID-19 is necessary for the effectiveness of treatment.

