

Antibiotics susceptibility of microorganisms isolated from patients with respiratory tract infections symptoms in Egypt**Научный руководитель – Карамова Назира Сунагатовна*****Hassan Gamal Osman Osman****Postgraduate*

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Respiratory tract diseases are responsible for health burden worldwide. The major etiological agents of RTI are viruses, however, a disease often complicated by bacterial pathogens that colonize respiratory tract. Clinical microbiologists sign that Gram-negative multidrug-resistant bacteria exhibit the largest risk to public health (2). The excessive use of antibiotics for the therapy of RTI has been recognized as one of the major reasons for the evolution of resistance of bacteria to antibiotics (1). Another cause for antibiotic resistance has been examined as the production of biofilms and beta-lactamase capable of the degradation of different antibiotics (3).

In this work, we obtained 90 isolates of microorganisms from the clinical material of 65 patients with RTI symptoms admitted to Kasr El-Aini, El-Rahma Masr El Gedida hospitals, Egypt. The isolates were identified using different methods: conventional microbiological and biochemical tests, Analytical Profile Index (API-10s, API-20 strep) system and MALDI-TOF (Bruker Microflex and Vitek MS) mass spectrometry. The microorganisms isolated were 5 Gram-negative bacteria *Klebsiella pneumoniae* (22.2 %), *Escherichia coli* (8.9 %), *Pseudomonas aeruginosa* (7.8%), *Acinetobacter baumannii* (7.8 %) and *Enterobacter cloacae* (1.1 %), 5 Gram-positive bacteria *Staphylococcus epidermidis* (16.7 %), *Staphylococcus aureus* (7.8 %), *Enterococcus faecalis* (2.2 %), *Corynebacterium striatum* (1.1 %), *Bacillus subtilis* (3.3%) and fungi *Candida tropicalis* (21.1 %). We found that *A. baumannii* was resistant to all tested antibiotics (Amikacin, Ciprofloxacin, Levofloxacin, Ampicillin/sulbactam and Trimethoprim/sulfamethoxazole). *K. pneumoniae* and *E. coli* were resistant to Amikacin, Ciprofloxacin, Amoxicillin/clavulanic, Ceftazidime, Cefotaxime, Ampicillin, and Ceftriaxone. *E. cloacae* demonstrated resistance to Amoxicillin/clavulanic, Ceftazidime, Cefotaxime, Ampicillin, and Ceftriaxone. *S. epidermidis* was resistant to Penicillin, Gentamycin, Cefoxitin, Oxacillin, Amoxicillin/clavulanic and Erythromycin, while *S. aureus*- to Penicillin and Gentamicin. It was shown that *K. pneumoniae*, *E. coli*, and *A. baumannii* possess a β -lactamase, at the same time all Gram-negative bacteria tested were not able to produce carbapenemases.

References

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