

MONITORING OF MULTIDRUG RESISTANCE STRAINS MRSA

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Introduction. MRSA – is any strain of *Staphylococcus aureus* that has developed, through horizontal gene transfer and natural selection, multi-resistance to beta-lactam antibiotics, which include the penicillins (methicillin, dicloxacillin, nafcillin, oxacillin, etc.) and the cephalosporins. The circulation of MRSA in the last 10 years is increasing rapidly not only in the EU and America, but all over the world because of uncontrolled use of antibiotics.

Aim. Install polyresistance strains of MRSA isolated from the nasopharynx of clinically healthy population.

Materials and methods. Material for the study consists of 24 sample of biological material from the nasopharynx from clinically healthy population. Used transport medium (Amies without charcoal), topolo environment (TGS), elective-salt agar (ESA), blood agar (KA), Wednesday Altnickol, Mueller-Hinton agar, standard paper discs. The studies were conducted using laboratory (microbiological) methods of research, in accordance with the orders and guidelines of the MOH of Ukraine on the basis of research laboratory of microbiological and immunological research at the Department of Microbiology, Virology and immunology National University of pharmacy

Results and discussion. The result of this work revealed the following: there is a dependence of the resistance of MRSA to other antibiotics, relative to methicillin. If the percentage rezistentnosti great to methicillin, and other antibiotics (Amoxicillin, Amoxiclav, Ampicillin, Cephalexin, Cefepime, Streptomycin, Lincomycin, Clindamycin, Erythromycin, Ciprofloxacin, Gatifloxacin, Chloramphenicol, Nifuroxazide, Chlorhexidine, Dioxidine) she rises, too. But if there is sensitivity to oxacillin to other antibiotics *Staphylococcus aureus* is also sensitive (Amoxicillin, Amoxiclav, Cefazolin, Ceftriaxone, Cephalexin, Cefepime, Gentamicin, Streptomycin, Tobramycin, Azithromycin, Clindamycin, Erythromycin, Ofloxacin, Levofloxacin, Gatifloxacin, Doxycycline, Chloramphenicol) but not for all antibiotics (Ampicillin, Lincomycin, Oxytetracycline, Nifuroxazide, Chlorhexidine, Dioxidine). Sensitivity to certain antibiotics is saved in both cases. Also in this work, we can say that at this point in time, MRSA is especially dangerous to the hospital and nosocomial infections, in a large risk are small children, as they can use only a small number of existing drugs.

Conclusions. Unfortunately, the problem of antibiotic resistance cannot be overcome, it only can be controlled. To overcome this problem, there are complex methods, but first we need to ban the uncontrolled use of antibiotics and misuse of antibiotics in the treatment of viral and fungal infections.