was checked pH of nutrient media, which is equal to 6.0. With a view to obtaining the pure growth, the samples were sown by method of hatching, and the crops were grown at a temperature of 30 ^{O} C for 24-48 hours, the dye-resistant and dyed preparations were produced from the uncertain colonies. The uncertain colonies based on the species of the genus Candida re-sown on Sabourad-Dextrose Agar, and in 24 hours, the suspension was produced from the pure growth in Sabourad-Dextrose Broth in accordance with McFarland standard of 1,0. Using the cotton tampon, the growth moved into the broth was re-sown on the Petri dish Sabourad-Dextrose Agar, and with a view to drying the crops, it was retained on the thermostat for 20 minutes.

All four samples of antimycotic ointments under study wекe evenly distributed on the dishes (with the area of 0,5 sq. cm. each) with the fungal crops by means of the sterile wooden applicators, and they were grown.

There results were assessed in accordance with the diameter of the zone of reducing the growth around the "buttons" of antimycotic ointments. Antimycotic activity that they revealed was studied on 24 strains. The strains were taken from materials as follows: abdominal cavity exudate, bronchial mucous, purulent discharge, from mucous membrane of the anointed throat, urine, from mucous membrane of the anointed oral cavity, from mucous membrane of the anointed vagina, phlegm, and urethral smear.

The results ae as follows: the strains taken from four different compositions of ointments proved to be resistant to ointment 1. The ointments had greater or lesser active antimycotic effect with a 10-15 mm zone of reducing the growth on strains of the species of the genus Candida.

Based on the studies, the conclusion was drawn as follows: formula of the developed 2-4 ointments is already potential pharmaceutical product, and they can be used after going through the correct procedures.

ANTIMICROBIAL PROPERTIES OF MORPHOLINE-CONTAINING 1,3-THIAZOL-2(3*H*)-IMINE DERIVATIVES

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Infectious diseases still stand as a major cause of morbidity and mortality, and this problem can be worsened with the current antimicrobial resistance crisis. To tackle this crisis more studies analyzing the causes, routes, and reservoirs where antimicrobial resistance can emerge and expand, together with new antimicrobials and strategies for fighting antimicrobial resistance are needed. One of the ways to solve this problem is to synthesize compounds of a new chemical structure.

The aim of our work was to search new biologically active compounds with antimicrobial activity among new morpholine-containing 1,3-thiazol-2(3*H*)-imine derivatives.

According to the data of literature, thiazole- and morpholine-containing heterocycles are well known as antimicrobial (antibacterial and antifungal) agents.

Therefore, we were interested in studying these properties of the obtained compounds − 3-[2-(morpholin-4-yl)ethyl]-N-phenyl-1,3-thiazol-2(3*H*)-imine derivatives.

Preceeding such an investigation, a *in silico* study of toxicological properties was carried out using computer programmes ROSC-Pred-*online* for prediction of rodent organ-specific carcinogenicity and GUSAR-*online* for prediction of acute toxicity. This preliminary stage could support the biological application.

According to the results obtained, tested 3-[2-(morpholin-4-yl)ethyl]-N-phenyl-1,3-thiazol-2(3*H*)-imine derivatives have favorable toxicological properties. belong and are recommended for pharmacological screening.

To study antimicrobial activity, the method of diffusion into agar (the method of "wells") was used. Pharmacological screening were performed *in vitro* against gram-positive and gram-negative microorganisms according to the recommendations of the Ministry of Health of Ukraine. To evaluate this type of activity of the substances reference strains opportunistic bacteria were used: *Staphylococcus aureus* ATCC 25923, *Bacillus subtilis* ATCC 6633, *Pseudomonas aeruginosa* ATCC 27853, *Proteus vulgaris* ATCC 4636, *Escherichia coli* ATCC 25922.

According to the results obtained, tested morpholine-containing 1,3-thiazol-2(3*H*)-imine derivatives have a high potency as antimicrobial agents. The tested substances with methoxy and dimethoxy substituents showed high sensitivity to gram-positive microorganisms − *Staphylococcus aureus* and *Bacillus subtilis* with growth inhibition zones 24-26 mm. The substance with the ethoxy substituent showed slightly lower activity − the growth inhibition zone was 20-22 mm. Against gram-negative microorganisms (*Pseudomonas aeruginosa* and *Proteus vulgaris*) all substances demonstrated moderate antibacterial activity with growth inhibition zones of 16-18 mm and fungicidal activity against the fungus *Candida albicans* with growth inhibition zones of 20-21 mm.

These data indicate the prospects for further studies of these substances.

APPLICATION OF PROBIOTICS FROM SPORO-FORMING BACTERIA IN MEDICAL PRACTICE

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Introduction. About 90 years in healthcare use live lacto, bifido and colibacteria. Currently, the best documented probiotic bacteria used in human therapy are lactic acid bacteria. However, they do not always show sufficient antagonistic action against pathogenic strains of bacteria and some fungi, which gave impetus to the search for new microorganisms among bacteria of the genus *Bacillus, Brevibacillus, Clostridium, Sporolactobacillus.* A large number of active substances are produced by spore-forming bacteria, so they can be used to solve a long-standing problem - a side effect of antibiotics.