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Mass uncontrolled use of antibiotics, environmental degradation, large amount of stress situations cause reduction of adaptive abilities of human body, activate the sympathetic-adrenal system, which, in turn, causes the neurohumoral changes due to the imbalance of neurotransmitters production, affecting specific and nonspecific resistance of the organism, as well as the microorganisms. According to WHO data, the number of people with disorders of immune system is constantly increasing. That leads to exacerbation of chronic diseases, including those caused by opportunistic pathogens. Thereby, it is very important to develop appropriate methods for macroorganism's optimum microbiocenosis restoring. The review summarizes the scientific data about composition, mechanisms of action and drug formulations of probiotics, prebiotics and synbiotics. The probable complications after taking these drugs are described. The main problems associated with the production and standardization of probiotic preparations and perspective directions aimed at the normalization of microbial ecology are presented in the article. Key words: microbial ecology, probiotics, prebiotics, synbiotics.	5-12
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MICROBIOLOGICAL ASPECTS OF STAPHYLOCOCCAL INFECTIONS TODAY Ponomarenko S.V.	
Overview summarizes the data of the domestic and foreign literature about the prevalence and biological properties of <i>S. aureus</i> . <i>S. aureus</i> enzymes of aggression and pathogenicity factors (capsular polysaccharides, different extracellular protein substances (hemolysins, leukocidins), phospholipase, hyaluronidase, fibrinolysin, coagulase etc.) which disintegrate structural components of connective tissue and eukaryotic cells are described in terms of improvement and enhancement of microbiological technologies. Detailed information about the problem of <i>Staphylococcus aureus</i> multidrugresistance and mechanisms of methicillin resistance formation is given. The necessity of targeted monitoring of the biological properties of <i>S. aureus</i> selected clinical isolates in order to optimize detection of the pathogen aggressiveness is proved. Key words: Staphylococcus aureus, biological properties, methicillinresistance.	13-17
ЕКСПЕРИМЕНТАЛЬНІ РОБОТИ (EXPERIMENTAL STUDY)	
RESEARCH OF SOPHORA JAPONICA L. FLOWER BUDS VOLATILE COMPOUNDS WITH GAS-CHROMATOGRAPHY/MASS-SPECTROMETRY METHOD Maksiutina N.P., Cholak I.S., Karpiuk U.V.	18-23

This work represents the results of the research of essential oil contained in *Sophora japonica* L. flower buds volatile compounds collected during the next stages of their development: green flower buds, formed flower buds and the beginning of flower buds opening. Essential oil assay content in *Sophora japonica* L. flower buds was determined with hydrodistillation method. Content of essential oil in the raw material is less than 0,1%. Qualitative composition and assay content of *Sophora japonica* L. flower buds essential oil constituents were determined with chromatography-mass spectrometry method. In consequence of the research 80 constituents were identified in *Sophora japonica* L. flower buds out of which 61 substances are during the green flower buds and beginning of flower buds opening stages, 66 substances are during formed flower buds stage. Substances are represented by aliphatic and cyclic terpenoids, their alcohols and ketones. Most volatile substances were extracted on the stage of formed buds.

Keywords: *Sophora japonica* L., volatile compounds, gas-chromatography/mass-spectrometry

РОЗРОБКА ТЕХНОЛОГІЇ ТА ФАРМАКО-ТЕХНОЛОГІЧНІ ДОСЛІДЖЕННЯ НОВИХ КОМБІНОВАНИХ АНТИГІПЕРТЕНЗИВНИХ ТАБЛЕТОК «БІСОПАМІД»

Стрелець О. П., Трутаєв І. В., Стрельников Л. С.

DEVELOPMENT OF TECHNOLOGIES AND PHARMACO-TECHNOLOGICAL RESEARCH COMBINED ANTIHYPERTENSIVE NEW TABLETS "BISOPAMID"

Strilets O. P., Trutaev I. V., Strelnikov L. S.

The new original drug, code-named "Bisopamid" in the form of tablets, are proposed for the treatment of hypertension. As active ingredients of the tablets are antihypertensive substances from different pharmacological groups, namely bisoprolol fumarate (beta-blocker), lisinopril dihydrate (ACE inhibitor), and indapamide (thiazide diuretic). Tablets "Bisopamid" using excipients (lactose monohydrate, potato starch, MCC, calcium stearate) were obtained by direct compression. The main pharmaco-technological characteristics of the developed tablets "Bisopamid" were conducted and there were found that all the investigated technological characteristics meet the requirements of HFCs.

24- 27

Key words: hypertension, combined pill, bisoprolol, lisinopril, indapamide, pharmaco-technological properties.

ВИЗНАЧЕННЯ СТАБІЛЬНОСТІ ТА ТЕРМІНУ ПРИДАТНОСТІ МАЗІ З ЦИНКОВОЮ СІЛЛЮ КИСЛОТИ ГІАЛУРОНОВОЇ ТА ТІОТРИАЗОЛІНОМ

Безрукавий Є.А.

DETERMINATION OF THE STABILITY AND SHELF LIFE OF OINTMENT WITH ZINC SALT OF HYALURONIC ACID AND THIOTRIAZOLINE

Bezrukaviy Y.A.

Based on the results of physical-chemical and microbiological research investigated the stability and shelf life of ointment with zinc salt of hyaluronic acid and thiotriazoline. Ointment which stored in aluminum tubes, during all term of researches met all the indicators of drugs QC. Ointment which kept in jars from orange glass did not meet the indicator "acidic number" in defining of indicators per 24 months of storage. Was established shelf life of medication with zinc salt of hyaluronic acid and thiotriazoline - 2 years.

28-33

Keywords: ointment, stability, shelf life, zinc salt of hyaluronic acid, thiotriazolin.

ПЕРЕДУМОВИ ВИНИКНЕННЯ ТА ШЛЯХИ МЕДИКАМЕНТОЗНОЇ КОРЕКЦІЇ СИНДРОМУ ЕНТЕРАЛЬНОЇ НЕДОСТАТНОСТІ У ХВОРИХ НА ГОСТРИЙ ПАНКРЕАТИТ

Куновський В.В.

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PREREQUISITES OF ENTERIC FAILURE MEDICATED CORRECTION IN PATIENTS WITH ACUTE PANCREATITIS

Kunovsky V.V.

On the example of the 62 patients treatment with acute pancreatitis were studied and considered the background to the development of enteric failure syndrome (EFS). By results of research it was argued that in 67,74 % of the patients on the background of peristaltic gastric contractions contractile capacity duodenal ulcer was acute reduced or significantly delayed, up to its complete absence in 59,68 % of patients. On the basis of morphological researches biopsy of the small intestine mucous membrane shown that on the basis of the EFS in 76% of patients with acute pancreatitis developing structural disorders in the anatomical structure of enterocytes. The ways of these violations drug correction by inclusion in a complex of drug therapy prokinetics and probiotic *Saccharomyces boulardii* according to the developed and approved regimens.

Key words: acute pancreatitis, enteric failure syndrome, motor and evacuation functions of gastrointestinal tract, morphometry, prokinetics, *Saccharomyces boulardii*.

ДОСЛІДЖЕННЯ ДІУРЕТИЧНОЇ АКТИВНОСТІ ПОХІДНИХ 3-МЕТИЛ-7-АЛКІЛ-8-МОРФОЛІНОКСАНТИНІВ

Бакуменко М.Г.

EXPERIMENTAL STUDY OF THE DIURETIC ACTIVITY AMONG 7-SUBSTITUTED-3-METHYL-8- MORPHLINOXANTHINES

Bakumenko M.G.

The experimental study of influence on functional activity of kidney of 14 compounds among 7-substituted-3-methyl-8-morpholinoxanthines synthesized for the first time and also some mechanisms of this action were studied. The introduction of studied substances resulted in an increase of diuresis by 23,8-118,9% ($p < 0,05$) for 8 hours of observation in albino rats. The most marked diuretic action was manifested by compound №8 - 3-methyl-7-($\bar{\sigma}$ -chlorbenstenil-2) 8- morpholinoxanthines which excelled reference agents hydrochlorthiazide by 1,8 times. The mechanism of the diuretic effect of compound 1 is connected not only with a decrease of reabsorption and increase of excretion of sodium in realization of its pharmacodynamic effects.

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ОСНОВНІ НАПРЯМКИ СИНТЕЗУ ТА БІОЛОГІЧНА АКТИВНІСТЬ ДЕЯКИХ ФОСФОРОРГАНІЧНИХ СПОЛУК, ЩО ВМІЩУЮТЬ ФРАГМЕНТИ СЕЧОВИНИ ТА ТРИХЛОРЕТИЛАМІДУ

Гушилик Б.І.

BASIC SYNTHESIS AND BIOLOGICAL ACTIVITY OF SOME PHOSPHORCONTATNING ORGANIC COMPOUNDS CONTAINING FRAGMENTS OF UREA AND TRYHLORETELAMIDU

Gushylyk B.

Data about directions of synthesis and use of the phosphororganic compounds in technics, biology and medicine is presented in the paper. Antimicrobial activity of 51 phosphororganic salts and Hides containing urine and threechlor ethylenamide has been studied. Perspective of the development of effective antimicrobial substances has been determined.

44-48

Keywords: organophosphorus agents, antimicrobial activity.