

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



МАТЕРІАЛИ

**105-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
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Матеріали підсумкової 105-ї науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) – Чернівці: Медуніверситет, 2024. – 477 с. іл.

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У збірнику представлені матеріали 105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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complement to existing data on the nephroprotective activity of melatonin and substantiate the high therapeutic potential and prospects of melatonin use for paracetamol-induced nephropathy.

Skrynchuk O.Y.

STUDY OF THE FLAVONOID CONTENT IN SOME CRAMBE PLANTS

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Introduction. A lot of attention has been recently paid to the study of the chemical composition of cultivated plants, which can serve as a potential source of medicinal products. Such plants are *Crambe cordifolia* (Stev.) and *Crambe koktebelica* (Junge) N. Busch of the genus *Crambe* L. of the Brassicaceae family. The genus *Crambe* L. has several dozen species, eight of which grow in Ukraine. They have a fairly wide range of applications: as vegetable or fodder plants, fat-oil crops, a source of biofuel, or they are used in the food industry. The representatives of this genus are perennial and annual herbaceous plants that originate from the subtropics (Mediterranean, North and East Africa, Central and Central Asia).

The aim of the study. It was found that the biological activity of medicines from raw materials of the *Crambe* genus is associated with the presence of phenolic compounds in plants, some of which are flavonoids. They play an important role in the vital activity of the human body, which is characterised by high and diverse biological activity: antioxidant, antitoxic, antispasmodic, antiviral, diuretic, antitumor, anti-inflammatory, vasodilator, hypoglycemic, choleric, hepatoprotective, antibacterial, antifungal, reparative, antisclerotic, P-vitamin (capillary strengthening), neuroprotective, and radioprotective.

Material and methods. The leaves and roots of two species of the *Crambe cordifolia* and the *Crambe koktebelica* were the material for research. They were harvested at the research plots of the cultural flora department of the Hryshko National Botanical Garden of the National Academy of Sciences of Ukraine in Kyiv. The leaves were collected during the mass flowering of plants in 2018-2020. The storage organs were collected in autumn, after the end of the vegetation period (in October).

Results. Generally accepted qualitative reactions are used to identify flavonoids in ethanol-water extracts (cyanidin test; 10% ethanol-water solution of potassium hydroxide; 10% solution of ferric (III) chloride; 10% solution of lead acetate). The quantitative content of individual compounds of flavonoid nature was detected and determined by the HPLC method in the studied raw materials. The results of the HPLC analysis showed mainly neohesperidin, with the content of 1,676.71 $\mu\text{g/g}$ and 1,809.44 $\mu\text{g/g}$ in the leaves of *Crambe cordifolia* and the *Crambe koktebelica*. Rutin (42.69 $\mu\text{g/g}$), naringin (50.96 $\mu\text{g/g}$), kaempferol (64.46 $\mu\text{g/g}$), and quercetin (135.91 $\mu\text{g/g}$) were found in the roots of the leaves of *Crambe cordifolia*. Isoquercitrin (68.95 $\mu\text{g/g}$) and naringin (56.11 $\mu\text{g/g}$) were found in the roots of the *Crambe koktebelica*. The quantitative content of individual flavonoids in the roots of the studied *Crambe* species was significantly lower than in the leaves.

Conclusions. The quantitative content of the total flavonoid amount was determined by the spectrophotometric method in raw materials of both species of the *Crambe* genus, which showed almost the same amount.

Sydor V.V.

PHARMACOECONOMIC ANALYSIS OF THE USE OF THE MOST POPULAR IN UKRAINE ANTIVIRAL DRUGS FOR THE TREATMENT OF ACUTE RESPIRATORY VIRAL DISEASES

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Introduction. Acute respiratory infections are the most frequent infectious diseases in people. According to the WHO, every third inhabitant of the planet gets sick from them every year. They account for 75% of all infectious diseases, and in years of epidemics - up to 90%. Influenza

and other acute respiratory infections rank first among the causes of temporary incapacity. The etiological structure of these diseases is dominated by viral infections. More than 200 different RNA and DNA viruses are known that can act as pathogens, but the most important are influenza viruses. One of the most popular, modern, registered and approved for sale in Ukraine antiviral anti-influenza drugs are 3 drugs with active ingredients - tyloron, rimantadine and inosine pranobex.

The aim of the study. Optimization of pharmacotherapy of viral diseases by conducting a pharmacoeconomic analysis of the use of antiviral drugs containing tyloron, rimantadine, and inosine pranobex.

Material and methods. Pharmacoeconomic research methods are applied - "minimization of costs", which is intended for the selection of a drug or method of treatment with minimal costs, and "cost-effectiveness", which allows for a cost-effectiveness assessment, in particular, to estimate the cost of a unit of the effectiveness of a treatment method. 90 schemes of pharmacotherapy for patients with viral diseases were analyzed. The patients were divided into 3 groups: the first group (30 patients) received Amiksyn® IS tab. 125 mg ("InterChem", Ukraine), the second (30 patients) - Rimantadin-KR tab. 50 mg (PJSC "Khimpharmzavod" Chervona Zirka", Ukraine), the third (30 patients) - Groprinosin tab. 500 mg (ToV "Gedeon Richter Poland", Poland) in therapeutic doses.

Results. According to the "minimization of costs" method, it was determined that the most expensive is antiviral pharmacotherapy with the use of the drug Groprinosin 500 mg, which is 411 UAH, the cost of treatment with Remantadine-KR 50 mg is 228.80 UAH, and the least expensive was treatment with the drug Amiksyn® IS 125 mg UAH 210. Using the cost-effectiveness pharmacoeconomic analysis method, it was established that the clinical effectiveness of the regimen of pharmacotherapy with antiviral drugs that contained tyloron (tab. Amiksyn® IS, in the first 2 days of treatment - 125 mg, then - 125 mg after 48 hours) , Remantadin-KR tab. (on the first day - 300 mg per day, on the 2nd-5th day - 200 mg per day) and inosine pranobex (tab. Groprinosin, 3 g per day for 1 dose) was, respectively, the coefficients - 0.05, 0, 1, 0.16 and indicates the lowest efficiency of Amiksyn® IS.

Conclusions. As a result of the research, it was found that the most effective scheme of pharmacotherapy of acute respiratory viral diseases was the one that includes tab. Groprinosin 500 mg (inosine pranobex), and the least expensive according to the course dose is the scheme containing tab. Amiksyn® IS 125 mg (tyloron).

Zamorskii I.I.

RENAL PHARMACOLOGY AND ESTABLISHING OF THE NEPHROPROTECTIVE POTENTIAL OF DRUGS AS AN IMPORTANT DIRECTION OF MODERN MEDICINE

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Despite significant advances in drug treatment and the introduction of renal replacement therapy, mortality from acute and chronic kidney injury remains high at about 30% -70%, depending on the cause, and its frequent combination with multi-organ pathology and insufficient treatment effectiveness necessitates the improvement of pharmacotherapy and the introduction of alternative means of effective nephroprotection to affect the etiological, pathogenetic and symptomatic components of the disease that led to renal failure. Nephroprotection is a set of measures aimed at preserving kidney function by preventing or limiting injury to renal tissue. This is especially important in patients with existing kidney dysfunction, cancer patients, elderly patients, as well as in cases of using potentially nephrotoxic drugs. The therapeutic approach of patient management today does not have clear recommendations for the treatment of a certain degree of kidney injury, but methods of preventing pathology are generally accepted, which include eliminating the pathogenetic factor, maintaining blood supply to the kidneys and especially the use of safe and effective nephroprotective drugs that have not yet been allocated to a separate group of drugs. At the same time, information about the nephroprotective properties of some drugs is fragmentary and is not always proven. Therefore, the scientific activity of the staff of the Department of Pharmacology of BSMU over the past 50 years has been focused on research in renal