МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»

М А Т Е Р І А Л И

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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preventive doses of these microelements (25 % and 36%, respectively) as well as with specific aspects of the impact of these trace elements on body functions (18% and 22%, respectively).

Conclusions. The results of the survey indicate frequent cases of consumption of medicines and/or dietary supplements containing micronutrients without prior medical consultation, which may result in their insufficient effectiveness or the development of side effects. The majority of respondents are not sufficiently informed about the content of trace elements zinc and selenium in food products and their influence on immunological reactivity, which requires a more detailed consideration of these issues during practical classes on hygiene and ecology.

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ENVIRONMENTAL STATE OF THE RIVER NETWORK OF CHERNIVTSI REGION ACCORDING TO SANITARY AND HYGIENE INDICATORS

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Introduction. The river network of the Chernivtsi region is represented by watercourses that enter the Danube and Dniester basins. Excessive anthropogenic influence, lack of a network of centralized treatment facilities led to a catastrophic state of the river network. Assessment of the quality of surface and groundwater is still a major public interest in the developed countries of the world. Indicator bacterial organisms can serve as a reliable environmental test. Examination of the bacterial density of water can provide an approach to assess the reliability of monitoring data. However, currently, these indicators are not yet used in the monitoring system.

The aim of the study. Clarification of the ecological state of the basins of the Siret and Dniester rivers according to sanitary and hygienic indicators.

Material and methods. Surface waters of the studied river network. Standard methods of determining sanitary and hygienic indicators. Physico-chemical indicators of water were determined in accordance with DSTU 7525:2014 and DSTU ISO 10012:2005." To confirm the morphological and other properties of the culture of microorganisms, the microscopy method was used, followed by identification according to Bergey's determinant.

Results. In recent years, monitoring studies have been carried out on the sanitary and hygienic indicators of the surface waters of the Siret River basins (from the source to the crossing of the border with Romania) and the Dniester (within the territory of the Khotinskyi National Nature Park. As sanitary and indicator organisms, intestinal coli (Escherichia coli), "coli-index" and "coli-titer" indicators were investigated. Among the investigated sanitary and hygienic indicators were also: chemical and biochemical oxygen consumption, pH, content of free oxygen, nitrogen compounds, sulfur, etc. The obtained results indicated an increase in organic and microbiological pollution of watercourses downstream of the studied watercourses. It is mainly observed in the area of large settlements on the Siret River (the village of Beregomet and the city of Storozhynets), on the Dniester River (the cities of Khotyn and Novodnistrovsk). Thus, after the specified settlements, place 4-6 times exceeding the accepted standards. In order to improve the quality of surface water, we conducted research on the fibrous carrier of the "Viya" type (TU (995990). It has been established that this fibrous carrier can be successfully used for the construction of "bioreactors" for cleaning surface waters and saturating them with oxygen. The effectiveness of using the "Viya" carrier in combination with the wooden construction for cleaning natural watercourses in the mountainous region of the Pokutsko-Bukovynsky Carpathians is shown. During the season, the "Viya" can "overgrow" with invertebrates (the so-called periphyton is formed). Bacteria and algae also accumulate on the "Viya". It has been established that the fibrous carrier placed on the "weirs" is capable of significant accumulation (almost 15 times) of bacteria and hydrobionts compared to their content in surface waters. The advantages of the proposed scheme of natural water purification are that the biomass accumulated at the "Viya" is mineralized and assimilated in the trophic chain, as evidenced by the indicators of biochemical (BOD), chemical (COD) oxygen demand, the amount of suspended substances in the water before and after the treatment structures.

Conclusions. A clear dependence of surface water pollution of the river network of the studied watercourses on the level of anthropogenic load was established. A close direct correlation between the level of organic pollution and the microbiological state of the Siret and Dniester river basins was revealed. The seasonal dependence of the studied indicators is monitored. Despite the fact that microbiological indicators of fecal pollution are one of the most important parameters for determining water quality, the use of these indicators for monitoring the state of surface water in river basins of Ukraine has not yet been properly applied.

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GOOD LABORATORY PRACTICE (GLP) IN MODERN UKRAINIAN LEGISLATION. LITERATURE REVIEW

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Introduction. Good Laboratory Practice (GLP) is a widely recognized international standard in the quality system, aimed at ensuring uniformity, consistency, reliability, reproducibility, quality and integrity in preclinical research. In recent years, Ukrainian legislation has been rapidly harmonizing with the legislation of the European Union.

The aim of the study. To conduct a literature review on GLP in contemporary Ukrainian legislation, comparing and highlighting differences between OECD GLP and ISO/IEC 17025.

Materials and methods. Bibliosemantic and informoanalytical methods were employed in the research.

Results. The relevance of this research increased notably after the signing of the Association Agreement with the EU in 2014. A prime example of this lies in the fact that currently Ukrainian legislation includes several documents regulating the use of GLP requirements in laboratory research, such as:

- the Order of the Ministry of Health of Ukraine No. 944 of December 14, 2009
- the Guideline 'Medicines. Good Laboratory Practice. ST-N MOH: 2008'
- the Order of the Ministry of Health of Ukraine No. 690 of September 23, 2009 "About approval of the Procedure for carrying out clinical testing of medicines and examinations of materials of clinical testing and Standard regulations on the commissions on questions of ethics".

A significant legislative document in the field of public health was recently adopted in June 2022 – the Law of Ukraine "On the Public Health System." It can be noted that this law is harmonized with EU legislation regarding quality system requirements for testing laboratories according to ISO/IEC 17025 (DSTU ISO/IEC 17025) and Good Laboratory Practice (OECD GLP), meeting the same standards as the EU.

This is confirmed by the following provisions of the Law:

- Within the main expert institution in the field of public health, reference laboratories are established and operate. The main expert institution in the field of public health may determine other reference laboratories and reference centres to perform assigned functions.
- A network of reference laboratories operates in the public health system to ensure the quality management of laboratory research necessary for the operational functions of public health.
- Reference laboratory in the public health system is an accredited laboratory that performs functions and meets criteria established by the central executive body responsible for shaping state health policy.
- Accredited laboratory, regardless of ownership and location, located in Ukraine or any other country, complies with ISO/IEC 17025 (DSTU ISO/IEC 17025) and/or ISO/IEC 15189 (DSTU ISO/IEC 15189) standards, as well as Good Laboratory Practice (GLP OECD) or the National Accreditation Body of Ukraine, a foreign accreditation body that is a full member of the International Laboratory Accreditation Cooperation (ILAC), or another foreign accreditation body whose activities meet the requirements of the ISO/IEC 17011