

healthcare workers, to the acts of EU law based on the recommendations of the European Commission will contribute to the entry of Ukraine into the European Union as its full member.

Keywords: state regulation, implementation of EU directives, draft Law of Ukraine, safety and occupational health and safety of workers, healthcare workers, intersectoral interaction, sphere of occupational health protection.

TEACHING INFECTION CONTROL ISSUES AS A BASIS FOR CREATING A SAFE HOSPITAL ENVIRONMENT AT THE DEPARTMENT OF EPIDEMIOLOGY AND EVIDENCE-BASED MEDICINE

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Introduction: Adherence to infection control standards helps reduce healthcare-associated infections (HAIs) by providing optimal conditions for treatment and increasing safety for all persons in the hospital environment. The issue of creating a safe hospital environment is of particular importance in the context of undergraduate education, where the basic knowledge and skills of future medical professionals are formed, as well as in postgraduate professional education, where their qualifications are constantly improved. The importance of integrating the issues of creating an environment where patients receive medical care in safe conditions and medical staff work without threat to their health into the curricula of medical universities is due to the need to adapt healthcare professionals to new challenges, such as the spread of infectious diseases, in particular in connection with pandemics, and the growth of antibiotic resistance.

The aim is to summarize the information on the study of HAIs and infection control at the Department of Epidemiology and Evidence-Based Medicine at different stages of undergraduate and postgraduate education.

Materials and methods: A content analysis of the curricula developed by the department's staff and used in the educational process at the undergraduate and postgraduate levels was conducted.

Results: At the level of basic medical education, knowledge of HAIs helps students to understand the basic principles of infection control, which contributes to the formation of skills necessary for the implementation and compliance with infection safety standards and develop critical thinking skills to prevent infectious risks. The curricula and syllabi at the undergraduate level for various specialties provide for the study of HAIs and infection control issues:

- for specialty 221 «Dentistry» for students in the 4th year of study – 3 hours;
- for the specialties 222 «Medicine» and 228 «Pediatrics» in the 5th year of study in the elective discipline – 4 hours;
- for specialty 229 «Public Health» during the 1st and 2nd year of study – 14 hours.

At the level of specialized medical education, including internships and cycles of specialization and thematic improvement, the emphasis on infection control is further strengthened. Interns and doctors gain in-depth knowledge and practical skills necessary to manage infection risks in complex clinical situations at the postgraduate level. This not only increases their professional competence but also contributes to the overall improvement of the quality of medical care. The postgraduate curricula include the study of HAI and infection control:

- for the training of interns in «Epidemiology» in the 3-month educational component – 24 hours;
- for specialization cycles in Epidemiology lasting 5 months – 32 hours;
- for specialization cycles in Epidemiology lasting 3 months – 22 hours;
- for the cycle of thematic improvement «Modern aspects of infection control in health care facilities» – 78 hours.

In addition, the department's staff has developed a certificate program «Infection Control and Antibiotic Resistance», which is designed for 90 hours (3 ECTS credits).

Conclusion: Training medical professionals with an adequate level of knowledge of infection control, who will be able to effectively manage risks and ensure a high level of patient safety, is key to improving the quality of medical services and the effective operation of the healthcare system. The analysis of the curricula showed that not all medical students studying in the specialties 222 «Medicine» and 228 «Pediatrics» master issues related to HAIs and infection control at the undergraduate level, as these topics are included only in the elective discipline for these specialties.

Given the need to study topical issues of HAIs and infection control at all levels of medical education, it is important for specialists who have not mastered these topics during their undergraduate studies to create opportunities for their study at the postgraduate level.

Keywords: infection control, medical education, curriculum, students, doctors.

CHARACTERIZATION OF ENVIRONMENTALLY DETERMINED RISKS OF DISEASE DEVELOPMENT IN CHILDREN

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Introduction: Particular attention should be paid to the study of inhalation of pollutants from the air into the child's body, since due to the physiological characteristics of development, chemicals are more easily adsorbed, and less efficient biotransformation of ecotoxicants leads to the accumulation of chemicals in the child's body. The aim is to improve the effectiveness of actions to prevent the impact of polluted air on children's health.

Materials and methods: An ecological and hygienic assessment of emissions from stationary sources in industrial areas was carried out, air quality was characterized, and a comparative analysis of the incidence of children's diseases in the dynamics for the period 2013-2021 was provided.

Results: The largest volume of air emissions from stationary sources of pollution was found in Kryvyi Rih - 16.00 (95% CI 8.53-23.47) thousand tons per year, which is 4.53 times higher than in Dnipro, 6.13 times higher than in Kamianske and 997.3 times higher than in Novomoskovsk ($p < 0.001$).

According to the results of the hygienic assessment of air pollution, it was found that formaldehyde concentrations statistically significantly exceeded the MPC by 3.19-4.58 times. In the city of Kamianske, phenol was observed to exceed the MPC by an average of 2.11 times, while aromatic hydrocarbons did not exceed the MPC. In the studied cities, the level of general childhood morbidity is 4-15% higher than in the cities of Dnipropetrovska oblast ($p < 0.05$). It is 14-37% higher than in the comparison city ($p < 0.05$). The incidence of respiratory diseases among children in the study areas is 13-39% higher than in the comparison city ($p < 0.001$). It was found that the incidence of circulatory system diseases among children in Dnipro (102.8 (95% CI 92.7-112.9)) is twice as high as in Kryvyi Rih (52.4 (95% CI 46.15-58.65) per 10 thousand children) and 56% higher than in Kamianske (65.9 (95% CI 57.46-74.27)) ($p < 0.001$). In the study cities, the incidence of circulatory system diseases is (23.2 (95% CI 15.95-30.42)). This figure exceeds the data for the comparison city by 2.25-4.43 times ($p < 0.001$). The population carcinogenic risk for the city of Dnipro is 4980 additional cases of cancer from benzene intake. And 133 additional cases from formaldehyde intake (in a cohort of 1 million people). For the population of Kryvyi Rih - 1864 additional cases of cancer from exposure to benzene. And 136 cases from formaldehyde exposure. In the city of Kamianske, 3818 additional cases of cancer from benzene exposure are predicted, and 133 cases from FG exposure. The analysis of the results shows that the total non-carcinogenic risk is the highest in Kamianske, HI overall = 5.84. For children living in Dnipro, the HI is 5.1. For children in Kryvyi Rih, the HI was 4.15. It was proved that in the studied cities the non-carcinogenic risk to the respiratory, central nervous and immune systems is unacceptable. For the organs of the cardiovascular system, it is unacceptable for the children's population of Kamianske.

Conclusion: Based on the analysis and synthesis of the results obtained, methodological approaches to the diagnosis and prediction of environmentally determined risks of developing diseases in children were substantiated; the priority sources of air pollution in industrial cities with aromatic hydrocarbons, phenol and formaldehyde were identified; unified approaches to the system of monitoring the quality of atmospheric air and the system of epidemiological surveillance of non-communicable diseases in regional centers for disease control and prevention were proposed.