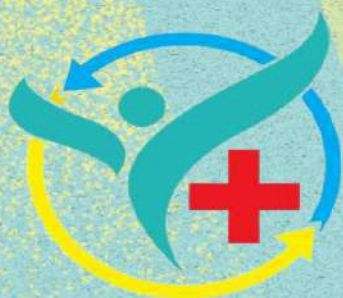


**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ
УНІВЕРСИТЕТ**

**м. Чернівці
20-21 лютого 2025**

**МАТЕРІАЛИ
З НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ
З МІЖНАРОДНОЮ УЧАСТЮ
"МЕДИЧНА СИМУЛЯЦІЯ-
ПОГЛЯД У МАЙБУТНЄ"**



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У тезах доповідей науково-практичної конференції з міжнародною участю лікарів, науковців та молодих учених, подаються стислі відомості щодо результатів наукової роботи, виконаної учасниками конференції.

М 42 Медична симуляція — погляд у майбутнє (для лікарів, науковців та молодих учених): наук.-практ. конф. з міжнар. участю.

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others are of paramount importance. At the same time, the main requirements put forward for the future doctor are the ability to solve certain problems of the patient through the selection and evaluation of information when collecting anamnesis, examination, the ability to make decisions in emergency situations, to carry out early diagnosis at the initial, undifferentiated stages of the disease, to rationally prescribe diagnostic and therapeutic interventions.

The next direction of pedagogical innovations of the teachers of the department and improving the quality of training of interns is the formation of a portfolio, which contains educational and methodological material for the entire period of internship training. The portfolio helps our graduates in the process of further work in practical healthcare.

Thus, the use of innovative technologies in the educational process is aimed at improving the quality of training of interns, strengthening the importance of independent work, optimizing the control of educational achievements of interns. The formation of interns in modern conditions should be widely based on the use of innovative training technologies, which will allow them to achieve a high level of their professional competence.

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INTEGRATING SIMULATION TOOLS INTO HISTOLOGY: ADVANCING PROBLEM-BASED LEARNING

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Problem-based learning (PBL) is a student-centered methodological approach that transfers the role of the teacher to the student and is focused on self-directed learning [1]. PBL is widely used in undergraduate and postgraduate medical education, but mostly in the field of clinical subjects [2]. We propose

the experience of introducing this methodology to second-year medical students during classes on Special Histology at the Department of Histology, Cytology and Embryology of Bukovinian State Medical University. The aim of this initiative was to advance interpretation of histological cases, create a platform for efficient clinical decision making and integrate interdisciplinary knowledge starting from the first and second year of medical university.

Two academic groups of medical students participated in the activity. The groups were made up of 12 Ukrainian-speaking students from the «Medicine» faculty, studying in the second semester of the second year. The students participated during their scheduled classes on Histology, Cytology and Embryology, specifically during the concluding block of topics on Special Histology (Content Module 5) [3]. Each academic group was randomly divided into three problem-solving groups (PSG) and given specific topics to work on. These topics were referred to the list of questions on individual students work within the framework of module topics, listed in the syllabus [3]. These questions included differentiation processes for specific types of epithelia, benign neoplasms, pathways for specific congenital malformations, etc. Approximately 8 clinical scenarios were analyzed across the two academic groups, with each PSG addressing one case in detail.

The PBL approach in this task primarily included individual work of students on finding a justified, relevant information on the given topics. This step demanded additional education on the basics of the literature review process. Some students found the initial literature review process challenging, highlighting the need for more foundational training in research methods. Besides theoretical fundamentals of the research question, students had to collaboratively find diagnostic steps for proposed clinical problem solving. Apparently, the students were focused on the methods of histological examination in these terms. After extracting sufficient information, each PSG requested a discussion session with the teacher, during which they received feedback and guidance on the direction of the research. The third step — the presentation of the PSG proposal — took place in front of the other PSGs within the academic group, with the opportunity for open discussion, taking into account the principles of safe space and reciprocity. Feedback surveys revealed that 85 % of participants felt more confident in their ability to interpret histological findings and apply them to clinical contexts. Key feedback points from students included an improved understanding of the material on the Special Histology block of topics and enhanced diagnostic confidence. These key points will be beneficial for future clinical practice and interdisciplinary alignment of knowledge and competencies.

Integrating PBL into a Special Histology course proved to be an effective strategy for fostering early development of critical thinking and collaborative skills among second-year medical students. The structured process not only enhanced their understanding of histological concepts but also promoted the application of these concepts to clinical problem-solving scenarios. Feedback from both students and educators highlighted the method's ability to stimulate active engagement and interdisciplinary integration. This experience demonstrates the potential of PBL to bridge foundational sciences and clinical applications, paving the way for broader adoption in preclinical medical education. Future efforts will focus on scaling this approach and assessing its long-term impact on students' clinical competency.

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MODERN POSSIBILITIES OF CONDUCTING SIMULATION CLASSES IN CONDITIONS OF LIMITED RESOURCES

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Introduction. Simulation-based education has become a cornerstone in training healthcare professionals, offering opportunities to practice clinical skills, enhance decision-making, and build teamwork without jeopardizing patient safety. However, implementing high-quality simulation classes can be resource-intensive, requiring advanced equipment, dedicated spaces, and specialized personnel. Institutions with limited resources face unique challenges in adopting this educational approach. This article explores strategies and modern solutions for conducting effective simulation classes in resource-constrained environments [1, 2].