

Modern Methods of Organizing the Educational Process at the Department of Phthisiology and Pulmonology of Bogomolets National Medical University in the 228 «Pediatrics» Specialty

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Currently, the teaching of the discipline «Phthisiology» in higher medical institutions largely depends on the implementation of standardized medical protocols and clinical guidelines for the diagnosis and treatment of tuberculosis (TB), as well as evidence-based medicine principles in healthcare practice. The objective of the Department of Phthisiology and Pulmonology (PP) is to prepare specialists with a high level of theoretical knowledge, clinical thinking, and practical skills essential components of their future professional activities, particularly in the 228 «Pediatrics» specialty. Improving the quality of medical education requires enhancing students' autonomy in preparation for practical classes, increasing their motivation to learn, and creating high-tech, modern educational and methodological resources. New educational challenges have also arisen during the state of war.

Objective – to highlight the specific features of organizing educational and methodological support at the Department of PP of Bogomolets National Medical University (NMU) in the 228 «Pediatrics» specialty at the undergraduate level.

Materials and methods. At the PP Department of NMU, educational courses have been developed for 4th and 6th year students of Medical Faculty (MF) No. 3:

1. «Phthisiology» is a part of the core curriculum of the normative discipline «Internal Medicine (gastroenterology, hematology, pulmonology, cardiology, rheumatology, nephrology), including endocrinology, phthisiology, neurology, clinical practice (vocational training) for internal diseases» for higher medical institutions in Ukraine, accredited at levels III–IV, for training specialists at the second (master's) level of higher education in the 22 «Healthcare» field, specialty 228 «Pediatrics» [1];

2. For 6th-year students, there is an elective course, «Clinical Aspects of Pediatric Phthiology» [1].

In the context of internal quality assurance monitoring at NMU, a transparent mechanism has been introduced for developing and adjusting the educational program (EP) for the 228 «Pediatrics» specialty, available on the official university website [2]. The EP is periodically reviewed, taking into account suggestions from all participants in the educational process, employers, and the academic community. Changes have been made to the project team, now including representatives from graduates (specialty 228 «Pediatrics»), current students, and employers. Students are involved in the project group for the EP, allowing their perspectives to be considered during the content update. Additionally, students are members of the MF No. 3 Academic Council and the Methodological Commission on specialty 228 «Pediatrics», where they directly approve these suggestions through discussions and voting. The Faculty Student Council also includes EP-related topics in its meeting agenda. The EP and curriculum have been updated with input from employers, academic staff, graduates, and students as much as possible. One example of this is the elective course «Clinical Aspects of Pediatric Phthiology» [1].

An integral part of teaching disciplines at the Department of PP is the development of clinical thinking in students as a component of their professional practical skills. To train highly qualified specialists, the department uses clinical case studies, X-rays, and data from laboratory and instrumental diagnostic methods. Based on this information, students establish preliminary diagnoses, perform differential diagnoses, and develop treatment plans. Additionally, students practice emergency care skills, such as managing pulmonary hemorrhage, spontaneous pneumothorax, and other critical conditions.

Results. Upon completing the course, students are expected to know the key indicators characterizing the global and local TB epidemiological situation, core approaches to TB detection and diagnosis, diagnostic algorithms for establishing a TB diagnosis, key principles of TB patient treatment, and the fundamentals of TB infection control and prevention. Practical skills include the ability to identify TB risk groups and develop patient management plans for individuals with symptoms suggestive of TB. Every student is expected to demonstrate proficiency in sputum collection techniques, proper use of respiratory protection, administration of tuberculin skin tests (TST), and conducting screening for TB-related symptoms. Students should be able to interpret TST results, gamma-interferon release assay outcomes, sputum examination using cultural and molecular-genetic tests, LF-LAM testing, and review chest X-rays and CT scans.

Significant emphasis at the department is placed on various forms of independent work, including theoretical preparation for practical classes, mastering practical skills, and conducting individual independent tasks, such as clinical analysis of patient case records, multimedia presentations, and the development of diagnostic and treatment algorithms.

Conclusions. A key direction in organizing the educational process at the department of PP is the integration of interdisciplinary connections, which promotes the development of clinical thinking and motivation to study the subject. The department has created and introduced a package of video lectures for independent student study on key topics of the discipline. To ensure proper educational support, faculty members actively engage in the creation and ongoing update of educational literature (textbooks, educational and methodological manuals, guidelines, and instructions for practical and independent work for both students and teachers).

References

1. Educational and Methodological Materials of the Department of Phthisiology and Pulmonology of Bogomolets National Medical University. <https://nmuofficial.com/zagalni-vidomosti/kafedri/department-tuberculosis-pulmonology/navchalno-metodychna-robota/>
2. Educational Program for Specialty 228 «Pediatrics», Official Website of Bogomolets National Medical University. <https://nmuofficial.com/akredytatsiya-2022/>