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РОЗВИТОК ПРИРОДНИЧИХ НАУК ЯК ОСНОВА НОВІТНІХ ДОСЯГНЕНЬ У МЕДИЦИНІ

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Медицина є прикладом інтеграції багатьох наук. Наукові дослідження у сучасній медицині на основі досягнень фізики, хімії, біології, інформатики та інших наук відкривають нові можливості для вивчення процесів, які відбуваються в живих організмах, та вимагають якісних змін у підготовці медиків. Науково-практична інтернет-конференція «**Розвиток природничих наук як основа новітніх досягнень у медицині**» покликана змінювати свідомость людей, характер їхньої діяльності та стимулювати зміни у підготовці медичних кадрів. Вміле застосування сучасних природничо-наукових досягнень є запорукою подальшого розвитку медицини як галузі знань.

Конференція присвячена висвітленню нових теоретичних і прикладних результатів у галузі природничих наук та інформаційних технологій, що є важливими для розвитку медицини та стимулювання взаємодії між науковцями природничих та медичних наук.

Комп'ютерна верстка:
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У збірнику подані матеріали науково-практичної інтернет-конференції «Розвиток природничих наук як основа новітніх досягнень у медицині». У статтях та тезах представлені результати теоретичних і експериментальних досліджень.

Матеріали подаються в авторській редакції. Відповідальність за достовірність інформації, правильність фактів, цитат та посилань несуть автори.

Для наукових та науково-педагогічних співробітників, викладачів закладів вищої освіти, аспірантів та студентів.

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Filipets N.D., Filipets O.O., Kmet O.G.

Motivative aspects of teaching pharmacotherapy in the training of specialists in the laboratory diagnostics educational program

Bukovinian State Medical University, Chernivtsi
filipec.natalja@bsmu.edu.ua

Abstract. Laboratory diagnosis detects the early stages of pathological processes, monitors the dynamics of markers of the disease, which provides quality treatment and reduces the level of severe complications. At the same time, despite the tight integration into all areas of practical medical care and the crucial role in choosing tactics for the treatment of most diseases, the involvement of students in the field of "Technology of Medical Diagnosis and Treatment" and replenishment of laboratories by graduates remains an actual problem. Among the causes of the personnel crisis in the field of laboratory medicine is the lack of motivation of students in education. The article highlights the features of methodological approaches in the teaching of pharmacotherapy, which provide a motivational component in mastering the stages of the educational program at the Department of Pharmacology. The conclusion is made about the need for a harmonious combination of methodological approaches for the formation of educational and professional motivation of all at the stages of undergraduate education of medical laboratory assistants.
Key words: motivation of students, laboratory diagnostics.

The laboratory service in Ukraine is intensively developing and has achieved significant success due to the re-equipment of material and technical base and mastering high-tech methods and techniques to provide the most complete information about the health of patients. At the same time, even if students study their chosen field, not all graduates join clinical laboratories or diagnostic service centers. Providing laboratories with highly qualified specialists is a modern problem, and given the growing need for laboratory research in complex epidemiological situations, it is an extraordinary problem. According to modern pedagogical ideas, the formation of professional

competence of future bachelors in laboratory medicine depends on many factors influencing the personal and professional development of professionals, the value of which should determine the activities of health professionals [1]. Thus, a significant reason for the lack of staff laboratory assistants is the factor of low motivation, due, in particular, insufficient attention paid to this important component in the acquisition of professional competencies in medical institutions.

To popularize the specialty "Technology of Medical Diagnostics and Treatment", it is important to improve the quality of career guidance work, as well as optimize approaches to personal motivation and student confidence in choosing the right future specialty in teaching disciplines [2]. The process of study at the Department of Pharmacology is aimed at training a specialist who is clearly aware of his professional need to provide medical, including pharmacotherapeutic, care to the population. The role of the medical laboratory assistant is considered much more widely, than as the assistant to the doctor, is not limited only to the best, in comparison with doctors, orientation in methods of laboratory diagnostics [3]. Currently, laboratory diagnosis is one of the most informative research methods in medicine, recognized as a fundamental medical specialty and is considered a factor that ensures patient safety [4, 5]. In the presence of powerful automated laboratory systems, laboratory care is provided at all medical stages at different levels. Therefore, the student should be informed that almost 60-70% of decisions in medicine are made based on the results of laboratory tests.

Of course, the priority in interpreting the results of laboratory tests belongs to doctors. At the same time, due to knowledge of pharmacokinetics and pharmacodynamics of drugs, their side effects, the first manifestations of which may be detected during general clinical, hematological, biochemical studies, etc. is the key to forming a qualified specialist - a medical laboratory assistant who is able to interact with the doctors and ultimately focused on effective treatment of a patient.

To perform this task, the teaching of pharmacotherapy combines traditional and interactive teaching methods of study. It should be noted that with fewer hours devoted to the study of pharmacology, there are some difficulties in mastering a large enough amount of material and, accordingly, the current and final control of students' knowledge. The lectures cover interdisciplinary aspects, students are involved in general issues in order to identify the initial level of knowledge to maximize the perception of the main material. The control of mastering the theoretical material is carried out during classroom classes, regardless of the format, offline / online, training. During the oral interview of students, test control, solving test tasks, thematic issues are maximally adapted to the specifics of the future specialty. At the same time, the practical classes focus on the role of

laboratory diagnostics in establishing the relationship between stages, the course of the disease and changes in cellular and chemical composition of biological fluids under the influence of drugs.

Given that the problem of any professional education is the transition from student learning to professional activities, practical classes use situational tasks with coverage of pharmacodynamics, including side effects that can be detected at the stage of laboratory research. Here, effective work is in small groups or in pairs, group work. Such forms of work encourage active participation and allow students to acquire skills of cooperation, master the skills of expression, active listening, summarizing information or drawing conclusions. The group project usually involves students to create test tasks of the first and second level of complexity with coverage of typical situations according to the scheme: drug - pharmacodynamics - the result of laboratory tests. Students identify adverse events, assess the risk to the patient, suggest corrective and preventive actions. Due to the situational tasks focused on laboratory practice, while studying at the Department of Pharmacology, the student realizes that laboratory research plays an important role in monitoring the proper and safe use of drugs [6].

Thus, in the practical classes in the coverage of pharmacotherapy, the student is given the opportunity to link the results of laboratory tests with specific representatives of the drug class. Such knowledge in the future will contribute to the active role of the laboratory assistant, which is to work with the doctor to choose the right diagnostic tests, drugs and their dosage. At the same time, the future medical laboratory assistant understands the importance of laboratory monitoring for earlier and reliable detection of side effects and toxicity of drugs, respectively, the importance of his results for evidence-based assessment of drug quality, ultimately focused on quality treatment of patients.

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