

**Unification of Surgical and Related Disciplines for Effective Specialist Training****Alexander OLEYNIK**

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**Abstract:** Improving the quality in any sphere of life – this is main goal of any innovation. Training of general practitioners is a major task of medical higher educational institution, and therefore the proper teaching of surgery in a whole range of other disciplines will create conditions for quality medical practice doctor in the future, and should meet the requirements of the integration process of the educational systems of other countries. This will improve the quality of learning disciplines among the students of enrolled this year, and develop common indicators for professionally-oriented exam after 6 (six) year of study to get a general level of theoretical and practical knowledge and skills. Based on the standard curriculum and learning plan was created the working program that regulates specific activities by teachers and students to achieve as a theoretical and practical knowledge required for this sequence of technological resources and action items using the credit-module system. The calculated threshold standards levels of education (sum of estimates after the module translates the 200-point scale ECTS) and communicated to students to stimulate their enthusiasm for learning to the maximum level and effective specialist training. The results indicate increase objectivity in the control of knowledge from teachers and students to increase interest in teach a subject that is allowed to integrate in medical education and, in future, in practical public health of Ukraine and other world.

**Keywords:** Unification, Surgical and Related Disciplines, Training

**Introduction**

The main goal of any implementation is to improve the quality in one or another sphere of life. The training of a general practitioner is the main task of a higher educational medical institution, and the proper teaching of surgery in a range of other disciplines (otolaryngology, urology and other) will create the conditions for quality medical practice that must meet the requirements of society. The level of qualification of the specialist is in the first place in the gradation systems of education of different countries, so it is necessary to improve the quality of medical training in the school, which is aimed at the implementation of the credit-module system. (Communiqué of the Conference of European Ministers Responsible for Higher Education, 2005).

The tasks of professional practice of general practitioners in Ukraine, Europe and America in general almost equally determine the basic requirements of knowledge and practical skills for a graduate of higher education: interviewing the patient, performing a physical examination, substantiation of preliminary diagnosis, determining the algorithm results, differential diagnosis, formation of clinical diagnosis, construction of treatment program and its implementation.

Therefore, in the form of an experiment, we restructure the educational process and the teaching of faculty surgery to achieve a positive effect in the training of physicians and their integration into the medical community.

We have implemented a system of planning, control and evaluation of the quality of education to determine the degree of mastering by students of certain components of the surgery, otolaryngology and urology program during the academic year and the disciplines "Surgery", "Otolaryngology" and "Urology" as a whole based on the cumulative number of points ranked by European credit transfer system (ECTS). The educational and methodical support of the organization of educational process is carried out:

- creation and updating of a bank of computer tests and clinical situational tasks;
- preparation and dissemination among students of methodological developments with a description of theoretical knowledge and practical skills assigned to the educational element, content module and module, questions for self-examination;
- preparation of methodological developments for teachers with a lesson plan, a list of issues to be discussed, criteria for assessing theoretical knowledge and practical skills, a specially designed journal of scores and a list of topics and practical skills; (Bakr, et al., 2014; 2015).
- preparation and distribution among students of a manual for the medical card of a patient with a directory of symptoms and syndromes for each educational element;
- preparation and distribution of a directory of clinical and statistical classifications with examples of clinical diagnosis;
- preparation and distribution of the algorithmic textbooks "Surgery", "Otolaryngology" and "Urology", which corresponds to the curriculum.

This allowed to improve the quality of education and to compare the mastering of the discipline among 4th year students who studied this year and students of 5-6 years who studied in the past, as well as to develop common indicators for conducting a professional-oriented exam on the 6th course and obtaining common with other levels of theoretical and practical knowledge and skills.

The structured, multifactor planning of educational process and application of various forms of stage control is carried out. Based on the standard program and curriculum, an experimental work programs on Surgery, Otolaryngology and Urology was created, which regulates specific measures by teachers and students to achieve the quality of theoretical and practical knowledge, resources and sequence of technological actions using elements of credit-module system.

The limit standards of levels of knowledge acquisition (sum of points) are calculated and brought to students in order to stimulate their aspirations in the learning process to the maximum level. Unfortunately, the existing nosological principle of training does not correspond to the practical work of the doctor, so we approached the formation of the curriculum on the syndrome principle: the module combines several pathological conditions with similar indicators, and the content module is determined by the syndrome and combines similar diseases or complications.

This approach allows you to use the time of practical training, to examine thematic patients according to the syndrome, to practice skills, to make a differential and form a clinical diagnosis with the definition of rational treatment tactics. Modern training of doctors is unthinkable without the use of innovative technologies, which, together with traditional education, make it possible to form their high competence that meets the requirements of practice, to ensure the quality of their future activities.

The most promising ways of training students in medical universities, combining the principles of problematization and modeling of professional activity, and, accordingly, new pedagogical technologies: problem-oriented learning, command-oriented learning, learning based on a clinical case, integrated learning, information and communication and computer technologies, training based on simulation technologies, project-oriented training. (Renegar, 1997).

Over the past decade, there has been a significant modernization of medical education, new approaches have been formed in the preparation of students of medical universities, new curricula have been developed, in which great attention is paid to simulation training of students.

In connection with the transition to credit technology of teaching, some topics of independent work of students with a teacher demanded the improvement and application of innovative teaching technologies. Since in credit technology of teaching a lot of time is devoted to the independent study of the subject by students, the innovative teaching technology based on a clinical case (Case Based Learning - CBL) is one of the most suitable.

CBL technology is widely used in clinical departments to develop a competency-based approach in diagnostics and treatment in future doctors. With the CBL method, students learn to solve specific clinical situations, problems, learn to find signs and combine them into clinical syndromes, and identify the leading syndrome. For this training technology, the staff of the department developed clinical situations in many modules. As one of the active teaching methods, CBL promotes student involvement in the learning process, requires students to take meaningful actions and reflect on the problem. This teaching technology contributes to the generation of new ideas, creativity of students, and collective solution of complex problems.

The advantages of the CBL method over the traditional ones are: an increase in student performance, the emergence of a positive attitude to the learning process, the strengthening of long-term memory, the emergence of conceptual thinking, motivation in learning, and improved problem solving skills. CBL refers to non-play, simulation-based, active learning methods for students. When solving the clinical situation proposed by the teacher, students learn to jointly analyze the clinical situation, find the patient's problems, assess the clinical and laboratory methods of examination and establish the leading syndrome in the patient.

This learning technology originates from 19th century law and business schools. Currently, this teaching method is widely and successfully used in teaching medical students and teachers. The meaning of the method is that the student is not presented with ready-made knowledge, but he himself must work out ways to solve the problem, he himself looks for the knowledge necessary to solve the problem. CBL differs from previously used teaching methods in that the student in the process of discussing the problem is equal with other students and the teacher.

When studying using CBL technology, students receive not only knowledge, but also acquire professional skills, communication skills. The CBL technology is as follows: the teacher develops several clinical cases, which should reflect the real clinical situation on a specific topic of the lesson. At the same time, the teacher plays the role of a leading colleague who asks questions, supports the discussion, if necessary, guides students, i.e. serves as a manager of student co-creation.

The experience of using our proposed experimental credit-module system in teaching and monitoring knowledge of surgery, otolaryngology and urology during from 2005 to 2020 every academic year shows that approximately 10% of students reach the level of 90-100% ("excellent"), 50% - to the level of "good", 35% - to the level of "satisfactory", and 5% need to rearrange one or two modules. (Sulyma., 2019).

The results show an increase in objectivity in the control of knowledge by teachers and increase the interest of so-called "average" students to master the subject, which allows you to master the theoretical and practical skills to solve problems facing general practitioners in the health care system. Ukraine, as well as, in the future, to integrate into the medical community of Europe, America and other countries.

## **Conclusion**

The characteristics of case-study technology: develop decision-making and problem solving skills; help to connect theory and practice, increase the level of critical thinking, stimulate teamwork skills, help to understand the complexity of real situations, help develop different points of view. Thus, the introduction of modern teaching methods for students of a medical university on Surgery, Otolaryngology and Urology contributes to the improvement of students' mastering of clinical skills, teamwork skills, and research skills.

## **Recommendations**

We recommend using the proposed technologies in the training of Medical Students and young Resident-Surgeons on disciplines Surgery, Otolaryngology and Urology.

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