

# International Conference on Science and Education

**iconse**  
October 29 - November 1  
ANTALYA  
TURKEY **2020**

**PROCEEDING  
BOOK**

**EDITOR**  
**Dr.Mehmet OZASLAN**



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**Editor:** Mehmet Ozaslan

This book was typeset in 10/12 pt. Times New Roman, Italic, Bold and Bold Italic.

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International Conference on Science and Education (IConSE) Published by  
ISRES Publishing, International Society for Research in Education and Science (ISRES).

Includes bibliographical references and index.

**ISBN:** 978-605-74825-2-5

**Date of Issue:** December, 2020

**Address:** Istanbul C. Cengaver S. No 2 Karatay/Konya/TURKEY

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## Quality Assessment of Criteria for Training Residents–Surgeons

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**Abstract:** The experience of preparing residents-surgeons on the basis of the credit-modular system is given. A point evaluation of the knowledge and skills of each module and discipline as a whole is developed, the results of use are given. The restructuring of postgraduate education in Ukraine on the basis of the Bologna Declaration envisages the development and implementation of a unified system of credit units - the European Credit Transfer System ECTS, which is a conditional unit for measuring the learning load and assessing its learning by the learner. The experience of conducting the educational process on new technologies during higher education studies dictates the necessity of applying similar approaches to the postgraduate education of doctors, including during their internship in different specialties. The 15-years' experience of conducting an internship in surgery was analyzed on the basis of the applied credit-module system of training. Many years of previous experience of internship at the Department of Surgery # 1 of the SI "Dnipropetrovsk Medical Academy of Ministry Health of Ukraine" allowed in the experiment procedure to apply credit-modular system of training of residents-surgeons since the 2005/2006 academic year. The introduction of the innovation was preceded by extensive methodological work, including the creation of accounting records of teachers and residents, writing methodological manuals for residents, the development of criteria for assessing the quality of training of young professionals, which is based on a daily multilateral evaluation of distributed modules.

**Keywords:** Residents-Surgeons, Training, Criteria, Quality

### Introduction

For of the young intern-surgeons it's important to mastering of surgical manipulation and stages of surgical interventions in treating the most common surgical diseases or providing an emergency assistance in case of emergency conditions. (Sulyma, et al., 2018). Development of modern surgery is impossible without modern techniques, including laparoscopic technology, so it's necessary to prepare medical interns to work on equipment that meets the time. Therefore it is necessary to restructure the educational process and teaching of surgery to achieve a positive effect in preparing the doctor and the medical community integration in the world.

To implement the system of planning, monitoring and evaluation of the education quality for a real degree of assimilation of students with specific components of the program during the academic year of surgery training and discipline for Module 1 "Abdominal surgery" in general based on the cumulative number of ranking points for the European Credit Transfer System (ECTS). (Bologna, 1999). This will improve the quality of learning discipline among the four-year students of enrolled this year, and develop common indicators for professionally-oriented exam after 6 year of study to get a general level of theoretical and practical knowledge and skills.



For the interns-surgeons besides the basic work in the surgical department with patients it's necessary to mastery of the operational equipment in operation and manipulation rooms, as well as mastering of mini invasive surgery technology in the learning center "Endoscopic technologies in medicine". First experience of our proposed pilot credit module system in teaching knowledge and control of surgery (2005-2020) based on the outcomes of several modules indicates that approximately 10% of students are on level sum score 90-100% "excellent", 50% of students - the level of "good", 35% of students - the level of "satisfactory" and 5% of students need to re-sit modules.

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 countries. In consideration of the importance of preparing qualified specialists, it's natural to increase quality of education in medical institution, so it's necessary to embody the credit transfer system in training course of surgery in Ukraine by preparation physician – general practitioners.

To implement the system of planning, monitoring and evaluation of the education quality for a real degree of assimilation of foreign students with specific components of the program during the academic year of surgery training and discipline for modül abdominal surgery in general based on the cumulative number of ranking points for the European Credit Transfer System (ECTS). (Dzyak et al., 2011). This will improve the quality of learning discipline among the four-year of foreign students of enrolled, and develop common indicators for professionally-oriented exam after 6 year of study to get a general level of theoretical and practical knowledge and skills of foreign physicians interns of surgery.

The structured, multifactor planning of the educational process and implementation of various forms of staging control were conducted. 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. (Bereznyts`kyy, & Sulyma., 2012).

Main objective of this passive method of training – lectures, is formation of an orientation basis for further assimilation by students of a training material, then when a source in this method of training is the word of the teacher that directly reflects its language of culture pedagogical professionalism. Besides, today lecture - as the passive method of study strengthened by such methods of presentation as an illustration (tables, schemes, presentations and so forth) and demonstration (slides, video movies).

It is important to note that in the course of application of a lecture method in the course of training students act as "object" of study - as passive listeners who have to acquire and recreate a lecture material which moves them the teacher - a source of knowledge. For the interns besides the basic work in the surgical department with patients it's necessary to mastery of the operational equipment in operation and manipulation rooms, as well as mastering of mini invasive surgery technology in the learning center "Endoscopic technologies in medicine". (Sulyma, et. al., 2018).

### **The Algorithm of Training and Preparation on Surgery of Surgeons-Interns on Practical Studies:**

1. Muster, the announcement of a theme and the purpose of practical studies - 5 minutes;
2. Work in surgical division on inspection of patients, participation in medical and diagnostic manipulations, on operations - 4 hours;
3. Theoretical analysis of a theme of study – 50 minutes;
4. Development of practical skills of performance of medical and diagnostic manipulations on firm "3B Scientific" productions - 1 hour;
5. Development of practical skills of performance surgical, including, laparoscopy operations in a special class of firms "Karl Storz-Endoscope" and "Ethicon Endosurgery" (subsection "Ethicon a Johnson and Johnson Company") - 1 hour;
6. The information on the task on preparation for following practical studies - 5 minutes. (Bereznyts`kyy, et al., 2007).

Experience of using credit-modular system in teaching and measuring knowledge of surgery since 2005 suggests that this approach is effective. Received results underscore the increased objectivity in the control of

knowledge on the part of teachers' interest and increasing of foreign students and of foreign medical interns' interest to master a subject, that allowed to prepare a general practitioner in surgery and surgeons, and integrate in the future in practical public health in worldwide.

## Conclusion

It is necessary the cooperation of the educational institution, clinical department and companies - manufacturers of medical and educational equipment, as in our case, working with "3B Scientific" and "Karl Storz-Endoscope", "Ethicon Endosurgery" (subsection "Ethicon a Johnson and Johnson Company"). Use of medical simulators and training mannequins for acquiring practical skills and new technologies of operative interventions using modern endoscopic equipment, tools, and simulators allows imitating the real clinical situation during operative interventions and learning steps to resolve it. As illustrated by the medical literature, the main errors in the operative interventions fall on the first 30-40 operations. That's why the working out of these first surgical interventions should be conducted on medical simulators for the purpose of reduce the risk of mistakes in the future. We recommend using the proposed technologies in the training of young Resident-Surgeons.

## Acknowledgements or Notes

Thank you very much to the staff of the SI "Dnipropetrovsk Medical Academy of Ministry Health of Ukraine", Dnipro, Ukraine.

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