

HEALTH, ENVIRONMENT, DEVELOPMENT**PRACTICAL APPROACHES TO EDUCATION
IN THE INTERNSHIP IN THE SPECIALTY “SURGERY”****Olexandr Usenko**

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Summary

Post-graduate medical education in Ukraine has seen many changes due to an ongoing war and perspective integration into the European medical space. These conditions demand the training of new surgeons, who can combine fundamental theoretical knowledge, mastery of modern innovative technologies, and high-quality surgical practice. One of the consequences of a full-scale Russian invasion is a steady decrease in the quantity of trained medical specialists, which can be explained by an external migration. That is why questions of post-graduate education of future doctors acquire state significance in Ukraine.

The purpose of this paper is to analyze the state of postgraduate surgical education in Ukraine and explore the ways of enhancing it, by deepening the practical orientation and evaluating the experience of the world's leading systems of training medical specialists.

The authors analyzed the system of post-graduate training in surgery, carried out a detailed description of the modern three-year internship, indicating the peculiarities of training at a specific surgical department. The transition to the European model of postgraduate education in surgery through internship and residency is seen as promising. This system is declared in the statute of postgraduate medical training in Ukraine, preference should be given to training in large scientific and practical centers, with the possibility of internship and practice in surgical centers abroad.

Key words: internship, residency, surgical residency, medical education in Ukraine.

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1. Introduction

The task of modern post-graduate medical education in the specialty of "Surgery" is to ensure the appropriate application of acquired knowledge and skills in practical medicine. By the means of daily clinical work with constant improvement of professional skills and knowledge in the specialty.

Special attention is paid to the acquisition of theoretical and practical skills, taking into account the specifics of surgical work and emergency medical care. (Voronenko Y.V., 2016, Volosovets O.P., 2020). In the setting of a surgical field – a fatal mistake by a practitioner of this specialty can immediately cost the patient's life. That is why problems of postgraduate education of future doctors, especially surgeons, in public healthcare institutions of Ukraine are of primary importance (Holovko N.G., 2011). The need for qualified specialists with a high level of education and professional knowledge is growing in Ukraine, as in most modern countries. An increasing shortage of personnel in the field of healthcare is felt in the countries of the European Union. This negative trend is confirmed by the results of the EURES report on labor shortage and surplus for 2023 (Kolosovych I.V., 2023). In the work of Voronenko et.al., the authors describe a deficit of healthcare workers in EU countries by 2020 of more than a million persons: 600.000 nurses, 250.000 doctors and 150.000 other categories of hospital employees (Kolosovych I.V., 2023). Healthcare minister of Ukraine Viktor Lyashko states that the strategy of WHO anticipates global medical staff shortage by the year 2030. The risk extends to most countries of the world, especially those with armed conflicts. Ukraine, unfortunately, is in a very dangerous situation because the country is in a state of war and there is constant external migration and mobilization into the armed forces. Reservation from the military draft is troublesome because of the rotational basis of jobs, offered by the Ministry of Health (Lyashko V.K., 2023). The described risks of medical staff shortages are increased by the potential status of Ukraine as an EU member, which would multiply the external migration of people with medical education to other EU countries.

2. Discussion

According to the current Model Curriculum and the training program for the specialty "Surgery", the main goal of the surgical internship is to gain and improve professional skills in the diagnostics and treatments of common surgical diseases, mastery of surgical skills and stages of operations by graduates of higher educational institutions, prepared according to the program of a general practitioner and reflected in the educational and qualification characteristics of a surgeon.

Training of surgical interns at the Department of Surgery and Transplantology takes place in accordance with the educational program of internship training, approved by the Academic Council of the P.L. Shupyk on December 21, 2022 (Pheleshtinsky Y.P., 2022).

The educational program is based on the provisions of the Constitution of Ukraine, laws of Ukraine "On Education", "On Higher Education", "On Professional Development of Employees", Order of the Ministry of Health of Ukraine dated July 14, 2022 No. 1219 "On Approval of Exemplary Internship Training Programs by Specialties: "Obstetrics and Gynecology", "Internal Medicine", "Pediatric Surgery", "Epidemiology", "Neurology", "Ophthalmology",

"Orthopedics and Traumatology", "Pediatrics", "Psychiatry", "Surgery", "Dentistry", "Medical psychology", "Emergency medicine", "Infectious diseases". Order of the Ministry of Health of Ukraine No. 1254 of June 22, 2021 "On approval of the Regulation on internship and secondary medical (pharmacological) specialization", registered in the Ministry of Justice of Ukraine on August 17, 2021 under No. 1081/36703; Order of the Ministry of Health of Ukraine dated March 16, 2022 No. 493 "On Amendments to Order No. 1254 of the Ministry of Health of Ukraine dated June 22, 2021", Order No. 805 of the Ministry of Health of Ukraine dated May 13, 2022 "On Amendments to the Order of the Ministry of Health of Ukraine dated June 22, 2021 No. 1254", Handbook of Qualification Characteristics of Professions. Issue 78 "Health Care"; The statute of the National Institute of Health of Ukraine named after P. L. Shupyk and other local normative documents regulating the qualification improvement and training of specialists in the field of knowledge "Health care" at the post-graduate stage.

Duration of internship training: 33 months (5940 hours) (198 ECTS credits). Educational part: (institutions of higher or postgraduate education) 9 months (1620 hours, 54 ECTS credits), three months annually (18 ECTS credits per year).

Practical part: (training base) 24 months (4320 hours, 144 ECTS credits.).

The program is based on modern scientific results and principles of evidence-based medicine in the field of surgery. The program ensures the acquisition and improvement of a high level of knowledge and professional skills in matters of diagnosis and treatment of major surgical diseases, mastering and assimilation of basic surgical skills, and stages of surgical interventions. Coordinated with similar programs in Europe and the USA.

Conducting classes with intern doctors at the department is planned according to the individual-group method. At the beginning of the lesson, in the introductory part, the teacher briefly justifies the relevance of the topic and defines the objectives of the lesson. On the basis of an oral or written survey, as well as by solving situational problems presented in the "KROK-3" program, the initial level of knowledge of interns, acquired during the study of previous disciplines and independent training, is clarified. The main time of the class is devoted to professional training: an examination of patients, implementation of surgical methods of diagnosis and treatment "at the patient's bedside", in the dressing room, and operating room.

A distinct feature of training in an internship at the Department of Surgery and Transplantology of the National Medical Academy of post-graduation education of Ukraine is that the clinical base of the department is the flagship of Ukrainian surgery: "National Scientific Center of Surgery and Transplantation named after O.O. Shalimov to National Academy of medical science of Ukraine"

In the structure the NSCST named after O.O. Shalimov there is a modern clinic with 560 beds, which consists of 20 scientific and clinical departments, an operating block with 12 operating theaters equipped with the most modern anesthetic and surgical equipment, and an outpatient clinic.

The interns of the department have the opportunity to learn from the best scientific specialists, and practicing surgeons, and get an opportunity to assist in unique operations, including operations of the highest level of complexity on the digestive organs (esophagus, stomach, intestines, liver, bile ducts, pancreas), cardiovascular system (heart, aorta and its branches, peripheral arteries, venous vessels), thoracic cavity (mediastinum, lungs, bronchi, trachea); transplantation of organs and tissues (kidneys, liver, pancreas, heart); The latest techniques of minimally-invasive surgery, diagnostics, and treatment standards, based on up-to-date protocols are implemented in the clinical process.

From December 2024, an additional clinical base will be added to the clinical training. It is situated in the Department of General and Emergency Surgery of Kyiv City Hospital № 6, which is the city's specialized center for surgical treatment of acute intestinal obstruction, with a division of septic surgical pathology, which provides highly qualified assistance to patients with surgical infections.

All teachers of the department are experienced pedagogues, surgeons of the highest qualification category, who are actively engaged in medical and diagnostic work in the clinic.

Considering the capacity of the clinical bases at the Department of Surgery and Transplantology, there is an opportunity for comprehensive training of a qualified surgeon. The department has implemented an active rotation of interns in departments of various specialties (abdominal, vascular, microvascular, cardiac surgery, surgical infections, etc.) with an emphasis on the last year of training in the internship of the basic department, taking into account the intern's wishes, the medical staff recommendations and further prospects independent practical work.

In the clinic, the vast majority of interns see for the first time the real threat posed by surgical pathology and feel the need for sufficient knowledge and skills to provide adequate care. Understanding real clinical situations is the best motivation to acquire theoretical knowledge and practical skills.

In the "Centre of Surgical Innovations" based in NSCST, interns may acquaint themselves with the newest methods of minimally invasive operative methods at their own pace. This is unique for our country, modular educational system involves theoretical and practical knowledge: training on modern simulators, practicing basic surgical skills on biological material, as well as in the operating rooms of the experimental department in the NSCST, which are equipped with modern surgical instruments for open surgical procedures as well as endoscopic ones. Classes are regularly held in the style of a "discussion club" where topics and reports are formed and presented by the interns themselves under the guidance of a mentor - an experienced surgeon. The topics presented in the discussion club, most of the time, go beyond the educational program and involve an active discussion based on modern international trends in surgery, the latest scientific publications, and practical (technical) aspects of the work of a modern surgeon (types of suture devices, advantages, and disadvantages of different types of surgical energy devices, etc.)

Therefore, modern internship training should orient the future specialist to possible ways of further development, within the framework of which a professional and scientific career is possible. Preference should be given to training in large scientific and practical centers, with the possibility of internship and practice in surgical centers abroad.

Educational systems should be oriented towards the use of special information technologies using clinical protocols, expert systems, and databases in order to optimize and increase the efficiency of the diagnostic and treatment process.

Such an approach forms specialists with different clinical thinking, one more common in Western clinics. Form a strategic style of thought, capable of generating innovative technologies, teaching, conducting research in the field of surgical care and allowing interns to quickly adapt to working conditions in the most modern clinics of Ukraine and abroad after graduation.

3. Conclusions

For adequate professional training of a surgeon, a complex, practical-oriented approach should be taken, which would secure the mastery of basic surgical knowledge.

For a surgical intern, it is important not to just understand the information on a given topic, one should acquire the methods of practical implementation, clinical thinking, and be capable of independent decision-making. In such an environment it is justified to decrease the amount of theoretical information given directly, in favor of providing more innovative, interactive forms and methods of education, a complete patient curation under the guidance of a surgical mentor.

Education of surgical interns in large surgical centers allows them to become well-rounded specialists, who are comfortable dealing with most problems they can encounter in the field.

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