

The main thing is to remember that we don't try to impress someone with a bright method or technique; we don't try to entertain students. And we start only from the desire to make the learning process more efficient – effective.

### Literature

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# **THE UNIFIED STATE QUALIFICATION EXAM IN UKRAINE AND BOGOMOLETS NATIONAL MEDICAL UNIVERSITY**

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## **Introduction**

The COVID-19 pandemic has led to the transformation of medical education. New forms and methods of education have become increasingly important since quarantine beginning, especially in the process of training doctors. Therefore, online education requires new approaches to the organization of individual assignments, self-education approach.

The quality assurance system implemented for the higher education of Ukraine at the sectoral level includes the rating of higher medical institutions and Unified State Qualification Examinations (USQE), which have been implemented since 1998 by the State Organization "Center for Testing the Professional Competence of Professionals with Higher Education in the Areas of Training "Medicine", "Stomatology" and "Pharmacy" at the Ministry of Health of Ukraine [1].

Starting in 2019, third-year students is held for entrants to the second stage of "master's degree" majoring in "Medicine", "Pediatrics", "Medical Psychology", "Stomatology", "Pharmacy" pass the first stage of Unified State Qualification Examination (USQE), which consists of the following components such as integrated test exam "Krok 1" (hereinafter - the "Krok 1" exam); objective structured practical (clinical) exam (hereinafter - practical (clinical) exam); professional English exam. The main principles of the qualifying exam are objectivity, transparency and publicity, independence, intolerance of corruption and bribery, integration into the international educational and scientific space, mandatory, unity of methods of evaluation of results. Professional competence is diagnosed as the ability to apply the knowledge and understanding of the

basic biomedical sciences and basic medical disciplines, which are the most important for providing care to the patient under the surveillance of a more experienced physician [2].

The purpose of the licensed integrated examination is to establish the level of professional competence of the graduate (intern) to the minimum required level following the requirements of the State Higher Education Standards [3].

LIE "Krok", which is used in Ukraine, have also undergone professional expertise in the world's leading certification centers, namely: the National Board of Medical Examiners (NBME, USA), the Center for Medical Education (CME, England), and the Institute of Content and Learning Methods of MES of Ukraine, Institute of Pedagogy and Psychology of Professional Education of APS of Ukraine. At the decision of the World Conference, the Licensing Examination Program of Ukraine was recommended to other countries that introducing licensing or certification exams as a model for use [4].

Since online learning is now important in continuing medical education, the aim of our study was to analyze the results of the USQE of the O.O. Bogomolets National Medical University from the point of view of higher medical educational institutions of Ukraine.

## **Results and Discussion**

### ***Analysis of the results of the first stage of the USQE "Krok 1" exam by the students-citizens of Ukraine.***

In accordance with the approved interim recommendations on the organization of anti-epidemic measures during the certification of students in the field of knowledge "22 Health Care" June 22 and 23, 2021, the Testing Center held the first stage of the Unified State Qualification Exam for the Ukrainian applicants. USQE was conducted in 28 institutions of higher education (hereinafter - HEI). The "passed" criterion was established in 2021 by the order of the Ministry of Health of Ukraine dated 22.01.2021 № 106 "On approval of the value of the "passed" criterion for the integrated test "Krok 1" exam and the professional English exam version of the order of the Ministry of Health of Ukraine dated 16.11.2020 № 2624) in connection with the established quarantine restrictions due to the spread in Ukraine of acute respiratory disease COVID-19 caused by coronavirus SARS-CoV-2, at the level of:

- 60.5% correct answers for the "Krok 1" exam;
- 30.5% for the English Language exam.

According to the current legal framework, in case of non-Compilation of any of the components of USQE, the applicant has the right to re-compile it no more once.

Due to the complex epidemic situation caused by the spread of coronavirus disease, in Ukraine the exam was conducted in 2 stages, specified on different dates. In the further research for a comparison of results of difficult examination with the last years, we will use averaged indicators of two stages.

For passing the Unified State Qualification Exam, according to the higher education institutions, 6211 students of Ukraine were registered, which is ~ 4% less than in 2020. The first stage of USQE consisted of 6211 entrants - citizens of Ukraine, including 113 in

the specialty "Medical Psychology", which is 4.7 times more than in 2020; in 370 in the specialty "Pediatics", others - in the specialty "Medicine" [5]. The results of exam success are collected in table 1.,

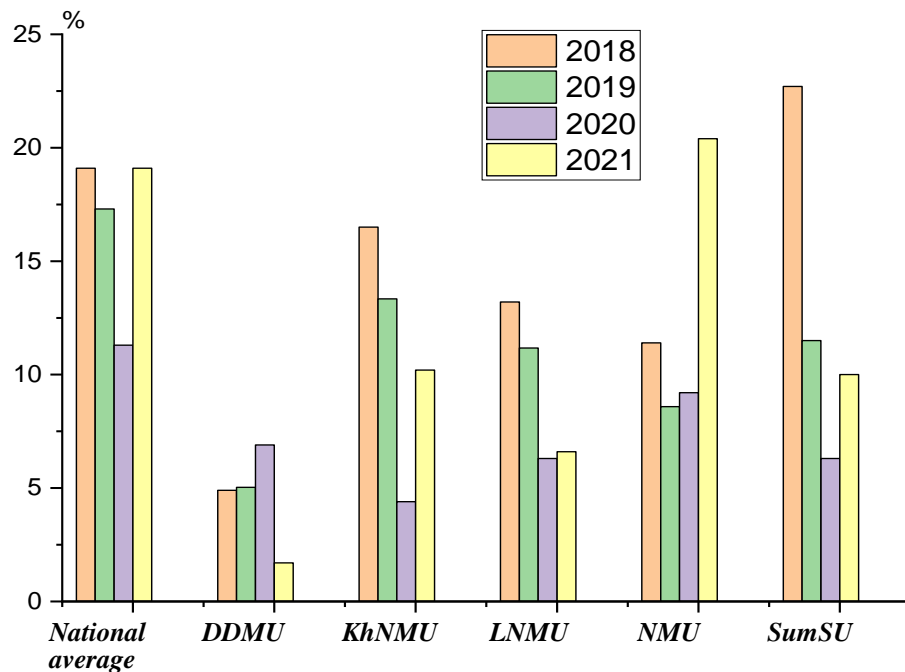


Figure 1. The results of passing the “Krok 1” exam by best Ukrainian students and national average in 2018-2021.

As can be seen from Fig. 1, the results of the first stage of USQE in Ukraine during quarantine in the context of the spread of coronavirus COVID-19 in compliance with anti-epidemic measures are better than in previous years across the country, but significantly worsened in 2021 (decreased by 7.8% compared to 2020) (see national average). According to average statistical indicators, the most successful in 2018-2020 were HEIs such as **DDMU**, **LNMU**, **SumNU** and **KhNMU**. Their success rate did not exceed the national average. In **NMU** the success rate has improved significantly in recent years, as has the success rate of Ukraine as a whole. This trend has developed due to the fact that in order to reduce the length of stay of students and interns during exams in personal protective equipment (protective mask, respirator), reduced the number of test tasks from 200 to 130 and, accordingly, the duration of the exam by 1 hour, which reduced psychoemotional stress in students and interns and helped maintain their concentration during the “Krok 1” exam.

***Analysis of the results of the USQE exam by the students-citizens of Ukraine by subtests.***

USQE exam seems after learning the basic fundamental disciplines, consisting of general scientific disciplines in the following subtests: biology (6-8 %), normal anatomy (9-11 %), histology (4-6 %), normal physiology (13-17 %), biochemistry (13-17 %), pathological physiology (13-17 %), pathological anatomy (10-14 %), microbiology (7-

9 %), pharmacology (11-15 %). We will analyze the national average of the results of the first stage of the USQE “Krok 1” exam in the form of test control by applicants-citizens of Ukraine for subtests for the last three years.

In Fig. 2a is shown the dynamics of changes in the results of the passing the subtests of the “Krok 1” exam by Ukrainian students by subtests: biology, normal anatomy, histology, normal physiology and biochemistry. Fig. 2b is shown the dynamics of changes in the results of the passing the subtests of the “Krok 1” exam by Ukrainian students by subtests: pathological physiology, pathological anatomy, microbiology, pharmacology and national average.

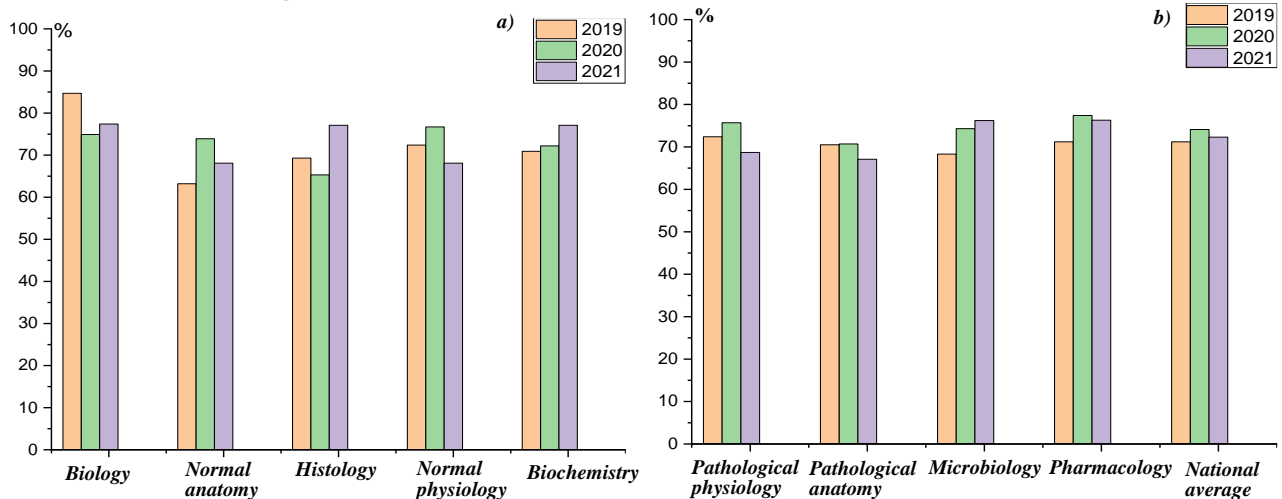


Figure 2. The results of passing the subtests of the “Krok 1” exam by Ukrainian students and national average in 2019-2021, specialty "Medicine"

As can see from Fig. 2a and 2b, compared to previous years [6-9], in 2021 student performance improved in subtests, such as biology (increased by 2.5%), histology (increased by 11.8%), biochemistry (increased by 7.0%) and microbiology (increased by 1.9 %) in compared to 2020. In such disciplines as normal anatomy (decreased by 5.8%), normal physiology (decreased by 8.6%), pathological physiology (decreased by 7.0%), pathological anatomy (decreased by 3.6%) and pharmacology (decreased by 1.1%) the results of performance have significantly deteriorated. Analyzing the overall national indicator, it is safe to say that Ukraine as a whole passed the USQE exam better than in previous years. As a result, it should be noted that the results of the subtest USQE exam in 2021 have improved, despite the difficult epidemic situation in Ukraine with COVID-19.

***The results of the passing the USQE exam by the students of the specialties "Medical Psychology", "Pediatrics" and "Medicine" in Ukraine.***

In 2021, for the first time in Ukraine, the analysis of the exam was conducted by differentiating specialties of the medical field, such as «Medicine», «Pediatrics» and «Medical Psychology». Consider the results of passing the first stage of USQE “Krok 1”

exam by Ukrainian students of the above specialties. The results of compilation within Ukraine are summarized in table 1.

Table 1.

The results of passing the first stage of USQE “Krok 1” exam by students of specialties «Medicine», «Pediatrics» and «Medical Psychology».

Specialty	National average	Subtests								
		Biology	Normal anatomy	Histology	Normal physiology	Biochemistry	Pathological physiology	Pathological anatomy	Microbiology	Pharmacology
Medicine	72.3	77.4	68.1	77.1	68.7	77.1	68.7	67.1	76.2	76.3
Pediatrics	70.2	72.0	68.5	69.4	67.3	80.2	67.1	63.3	71.6	72.0
Medical Psychology	57.4	59.4	58.2	58.8	56.8	66.2	53.0	51.2	54.4	58.6

As can be seen from table 1, the students majoring in «Medicine» are the most successful in terms of overall national performance compared to students majoring in «Pediatrics» or «Medical Psychology». It should be noted that the percentage and severity of test tasks in the above specialties are the same. In a more detailed analysis of the results of the subtests, it should be noted that in disciplines such as Normal anatomy, Normal physiology, Pathological physiology, the success of students in both «Medicine» and «Pediatrics» are kept at about the same level. If you pay attention to such a discipline as Biochemistry, the students of "Pediatrics" are more successful than the students of "Medicine" by 3.1%. Analysis of the success of students majoring in Medical Psychology showed that they generally did not pass the established value of the "passed" criterion of the country. Only on the subtest of Biochemistry subtests this criterion was passed successfully.

### Conclusions

The study analyzed the results of the first stage of the USQE exam by higher medical universities of Ukraine in 2021 in a pandemic COVID-19. As can be seen, the national success rate of all universities is 21.4% and was lower by ~10% than in 2020. Of the 28 universities that took part in the exam, 19 of them did not pass the national barrier. According to the subtests that make up the USQE exam, the best results in 2021 were demonstrated by histology (on 11.8%) and biochemistry (on 4.9%), and the worst results