

To Accreditation Council of the
Eurasian Center for Accreditation
and Quality Assurance in Higher
Education and Health Care

10.05.2022

REPORT
OF THE EXTERNAL EXPERT COMMISSION ON THE RESULTS OF THE
EVALUATION OF THE EDUCATIONAL PROGRAMME 7M07201-
"PHARMACEUTICAL PRODUCTION TECHNOLOGY"
OF NJSC "MEDICAL UNIVERSITY OF KARAGANDA"
FOR COMPLIANCE WITH THE STANDARDS OF ACCREDITATION OF
EDUCATIONAL PROGRAMMES OF THE SPECIALTIES OF THE MASTER
IN HEALTH CARE

external expert evaluation period: 27-29.04.2022

Karaganda, 2022

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List of symbols and abbreviations

| Abbreviation | Designation |
|---------------------|---|
| AIS | Automated Information System |
| AMP | administrative and managerial staff |
| University | Higher education institution |
| EEC | External expert commission |
| SCES | State compulsory standard of education |
| ECAQA | Eurasian Center for Accreditation and Quality Assurance in Higher Education and Health Care |
| IT | Information technology |
| MoH RoK | Ministry of Health of the Republic of Kazakhstan |
| MES RoK | Ministry of Education and Science of the Republic of Kazakhstan |
| MTB | Material and technical base |
| NJSC “MUK” | Non-Profit Joint Stock Company “Medical University of Karaganda” |
| RW | Research work |
| NLA | Normative legal acts |
| STP | - scientific and technical programmes |
| EP | Educational programme |
| TS | Teaching staff |
| AT | Advanced Training |
| POL | Problem-oriented learning |
| RoK | Republic of Kazakhstan |
| SU | Structural unit |
| PDT | Pharmaceutical production technology |
| PhD | Doctor of Philosophy |

1. Composition of the external expert commission

In accordance with ECAQA Order No. 14 dated April 13, 2022, an External Expert Commission (hereinafter referred to as EEC) was formed to conduct an external evaluation of the educational programme 7M07201- "Pharmaceutical Production Technology" in the period of April 27-29, 2022, as follows:

| order № | Status as part of EEC | Full name | Academic degree, academic title, position, place of work/place of study, course, specialty |
|---------|-----------------------|----------------------------------|---|
| 1 | chairperson | KAUYSHEVA ALMAGUL AMANGELDINOVNA | candidate of Medical Sciences, doctor-organizer of healthcare of the highest category, Vice-rector for educational and scientific activities of the Kazakhstan Medical University "HSPH". Expert on accreditation of medical organizations, Deputy Chairperson of the Board of "Kazakhstan Alliance of Medical Organizations" RPO |
| 2 | Foreign Expert | RAKHIMOV BAHODIR BAHTIYOR SHULLI | doctor of Medical Sciences, Sanitary Doctor, Hygienist and Epidemiologist, Assistant of the School of Public Health of the Tashkent Medical Academy, Researcher of the Koryo University |
| 3 | Academic Expert | OSTENOVA GULBARAM OMARGAZIEVA | ph.D., Professor, Head of the Department of Pharmaceutical Technology, Asfendiyarov Kazakh National Medical University |
| | Academic Expert | TULEUTAIEVA RAYKHAN ESENZHANOVNA | candidate of Medical Sciences, Head of the Department of Pharmacology and Evidence-Based Medicine, "Semey Medical University" NJSC |
| 4 | Expert-employer | EKATERINA KAMYLEVNA PAVLOVA | senior Provider, Paracelsus LLP, Paracelsus Pharmacy Network |
| 5 | Master's student | MAHMOUD NAZERKE SAIDUALIKYZY | Graduate student of the first year of study in the specialty "Pharmacy" of "Medical University of Astana" NJSC |

The observer for ECAQA is Umarova Makpal Aldibekovna, Head of Accreditation and Monitoring Department.

The work of the ECAQA was carried out in accordance with the Regulation of EEC (Order of the Director General of ECAQA No. 4 dated February 13, 2017).

The EEC report contains an assessment of the EP by spec. 7M07201- "Pharmaceutical Production Technology" for compliance with the Standards of Accreditation of Educational Programmes of the Master's Degree Programmes in Healthcare and conclusions (hereinafter referred to as the Accreditation Standards), the recommendations of the sec on further improvement of approaches and conditions for the implementation of the above educational programme and recommendations for the ECAQA Accreditation Council.

2. General part of the final report

2.1 Presentation of the educational programme in the specialty 7M07201-Pharmaceutical production technology

| | |
|--|--|
| Organization name, legal form of ownership, BIN | NJSC "Medical University of Karaganda" |
| Management body | MoH RoK |
| Full name of the chief executive officer | Turmukhambetova A.A. |
| Created in | 1950 |
| Location and contact details | Karaganda, str. Gogol 40 Phone: +7 7212 503930 |
| State license for educational activities in the residency (date, number) | 2014 |
| Information on branches, subsidiaries (if any) | no. |
| Year of implementation of the accredited educational programme (EP) | 2014 |
| Duration of training | 2 years |
| Total number of graduates since the beginning of EP implementation | 9 persons |
| The number of undergraduates in EP since the beginning of the current year | 11 |
| Full-time trainers/ Combiners involved in the implementation of EP, incl. % of degree | 56 PhDs, 31 PhDs, 169 PhDs and 129 Masters. |

The university is taught by highly qualified teachers, including 22 academics and members – correspondents of the National Academy of Sciences, the Academy of Medical Sciences, the Academy of Military Sciences, the National Academy of Natural Sciences of the Republic of Kazakhstan, the Russian Academy of Natural Sciences, the International Academy of Informatization, the Eurasian International Academy of Sciences, 56 doctors of sciences, 31 doctors of PhD, 169 candidates of sciences and 129 specialists with a master's degree.

The quality of education and scientific research is ensured by a high level of infrastructure – 7 educational buildings with classrooms, some of them are equipped with interactive equipment, a scientific library with reading rooms and an electronic library hall, a Center for Simulation and Educational Technologies with high-tech simulators and dummies, a Research Center and a Laboratory for collective use, a Research Sanitary and Hygienic Laboratory, 6 dormitories, 57 clinical bases, 476 bases for professional practice in the Republic of Kazakhstan and abroad, a Clinic of a medical university, a dental clinic, student sports and health camps.

NJSC "MUK" is the first medical university of the Republic of Kazakhstan, successfully passed in 2005 certification of the quality management system of the university of educational, scientific and clinical activities for compliance with the requirements of the International Standard ISO 9001 by the certification body NQA – UK (UK), NQA – Russia. In 2015, he passed certification in SGS (Switzerland), in 2020, he passed recertification in the Certification Association "Russian Register" (Russia).

NJSC "MUK" is included in the Directory of Medical Schools "Avicenna" of the World Health Organization and the World Federation of Medical Education. MUK is a member of the Magna Carta of Universities (MCU), the Association for Medical Education in Europe (AMEE), the Association for the Study of Medical Education (ASME), the Association for Medical Education in Asia (AMEA), the Organization for the Protection of PhD in Biomedicine and Public Health in the European System (Orpheus), the Organization for University Mobility in Asia and the Pacific (UMAP), the International Academy for the Development of Education (IAED), the Association for the Graduate School of Management of Barcelona (GSMB), the European Association of Universities (EUA).

In the national rankings, the university occupies a leading position in various Bachelor's programmes. According to the Master's degree programme, there were no ratings at the national level.

2.2. Information on previous accreditation

The accreditation of the educational programme was held in 2017 in the Agency IQAA/iqaa.kz

2.3 Conclusion on the results of the review of the self-assessment report on spec. "Pharmaceutical production technology" for compliance with the Standards of accreditation of educational programmes of the specialties of the master's degree in health care and conclusions

Self-assessment report on spec. 7M07201- "Pharmaceutical production technology" (hereinafter referred to as the report) is presented on 90 pages of the main text, 25 appendices), copies or electronic versions of 3 documents located at the link.

The report is characterized by the completeness of responses to all 9 main accreditation standards and criteria, structured taking into account the recommendations of the Guidelines for the self-assessment of the educational programme provided to the organization of education by the accreditation center - ECAQA, as well as the internal unity of information. The report is accompanied by a cover letter signed by the head – M.A. Yernazarova, Chief Specialist of the Department of Strategic Development and Quality Management, which confirms the reliability of quantitative information and information included in the self-assessment report.

The report contains a list of members of the internal self-assessment commission with an indication of the responsibility of each employee, information about the representative of the organization responsible for conducting the self-assessment of the educational programme - Riklefs V.P. Vice-Rector for Academic Affairs, Candidate of Medical Sciences, Professor.

Self-assessment of the educational programme by spec. "TPP" was carried out on the basis of the order of the head No. 61 dated 14.02.2022 "On approval of the composition of the internal commission".

The report was reviewed by the accreditation expert (s): Ustenova G.O., Head of the Department of Pharmaceutical Technology, Doctor of Pharmacy, Professor of Asfendiyarov KazNMU and the reviews noted strengths and areas for improvement, as well as recommendations for additions and changes, including the following:

| Standards | Reviewer (s) Recommendations |
|-----------|--|
| 1 | 1) Formulate separately the EP Mission, which should be along with the University Mission and the goal of the EP by spec. TPP 2) Improvement of the material and technical base of the School of Pharmacy on an ongoing basis for the qualitative preparation of research works of undergraduates; |
| 2 | 1) Development of training areas (individual educational trajectories) in the specialty "TPP" (Production and standardization of medical devices, biotechnology and bioengineering, Technology of cosmetic and parapharmaceutical products, Production of radiopharmaceuticals); 2) Expanding the partnership with employers of research bases for internships for undergraduates (organization of round tables, conducting questionnaires, etc.). 3) Expanding the search for partner universities and developing joint educational programmes, including for two-degree studies; 4) Development of dual education, training through research and multilingual programmes; |
| 3 | 1) Introduction of a portfolio method for formative evaluation of undergraduates 2) Improvement of evaluation sheets for the defense of master's thesis works. |
| 4 | 1) Consideration of dissertations of master's students in the Bioethics Commission, regardless of the presence or absence of a fragment on non-clinical and clinical studies. |

| | |
|---|--|
| 5 | Increasing the scientific indicators of employees – the Hirsch Index, the presence of articles in peer-reviewed journals, participation in the STP of the Republican and international levels; Improvement of pedagogical skills through participation in the Academic Mobility Programme and visits of faculty to universities and research centers of near and far abroad, as well as the "Bolashak" scientific internship programme. Improving the level of proficiency of foreign language teaching staff. |
| 6 | 1) Inclusion of the journal "Medicine and Ecology" in the list of journals included in CCES; 2) Organization of retraining of specialists from related specialties "TPP" and "Pharmacy" in the framework of their advanced training; |
| 7 | 1) Review of the Educational Programmes by independent experts. 2) Harmonization of educational programmes with the programmes of leading universities of the Republic of Kazakhstan and foreign universities for the implementation of academic mobility; |
| 8 | 1) Improvement of funding mechanisms for visiting professors and scientific internships abroad; 2) Development of strategic partnership with foreign universities in the field of implementation of the Master's degree programme; |
| 9 | 1) Further improvement of educational activities in accordance with the needs of the labor market in the areas of training: "Production and standardization of medical devices", "Production of radiopharmaceuticals", etc.; 2) Recommendation on changing the concept of medical devices to medical devices according to RD. |

Thus, in the process of feedback from the representative of the educational organization, experts received answers to the questions that arose and the self-assessment report was amended accordingly and additions were made to the recommendations of the reviewers.

All standards include the real practice of NJSC "Medical University of Karaganda" for the preparation of masters in the specialty 7M07201- "Technology of pharmaceutical production", taking into account the beginning of admission of students in 2014, reasoned data, examples of the implementation of the tasks of the educational programme, national and international events, methodological support, confirming compliance with the requirements of accreditation standards. The description in the self-assessment report is sufficiently complete and updated in terms of the number of residents, teachers, administration, information on selection and admission, learning outcomes, results of knowledge and skills assessment, material and technical base of the university and clinical bases, contractual obligations with partners (universities, associations, bases), financial information, plans for development and improvement.

The report is submitted to ECAQA in a completed form, with correction of the data on the above recommendations, written in a competent language, the wording for each standard is clear and understandable and described in accordance with the criterion of standards, tables and contain references in the text and have end-to-end numbering.

The quality of the self-assessment report served as the basis for moving to the next stage of the accreditation procedure, the external assessment. The experts plan to validate the report data, compare the information from the report with the information that will be obtained during the visit to the educational institution, i.e. verification of quantitative and qualitative indicators.

3. External expert evaluation assessment

External expert work in the framework of the evaluation of the educational programme in the specialty 7M07201 "Pharmaceutical production technology" was organized in accordance with the Guidelines for the external evaluation of educational organizations and educational programmes of

ECAQA (approved by the order of the Director General of the "Eurasian Center for Accreditation and Quality Assurance in Higher Education and Health Care" No.5 dated February 17, 2017) and in accordance with the programme approved by the Director General of ECAQA Sarsenbayeva S.S. and agreed with the Rector of the NJSC Medical University of Karaganda Prof. Turmukhambetova A.A. Dates of the visit to the organization: 27-29.04.2022. The external assessment is aimed at validation of the data of the self-assessment report and verification of indicators indicating the degree of compliance with the criteria of accreditation standards.

The sequence of the visit within 3 days is presented in detail in the Visit Programme (hereinafter referred to as the Programme), which is contained in the documentation of the accreditation center and in Attachment 3 to this report. The programme is evidence of the implementation of all planned activities within the framework of an external expert evaluation.

To obtain objective information, the EEC members used the following methods and their results:

- interview with management and administrative staff –2;
- interviews with undergraduates – 25;
- study of the [website https://www.qmu.edu.kz/en/](https://www.qmu.edu.kz/en/);
- interviewing - 10 employees and 10 teachers;
- questionnaires of teachers - 12, undergraduates - 12 and doctoral students - 7, respectively;
- observation of undergraduate studies: attendance at a practical lesson (undergraduates in the specialty of TPP, teacher prof. Atazhanova G.A., discipline "Modern technologies of phytopreparations").
- 2 practice bases were visited: JSC IR&PH "Phytochemistry", the laboratory of the School of Pharmacy of the National Academy of Pharmacy "MUK", where training on the TPP educational programme with the participation of 3 part-time employees is carried out;
- study of educational and methodological documents in the amount of 5 units both before the visit to the organization and during the visit to the units (the list of studied documents is in Attachment 2).

The staff of the accredited organization ensures the presence of all persons indicated in the visiting programme and according to the lists of interviews and interviews (Table 1).

Table 1 -Information about the number and category of participants in meetings, interviews, interviews with members of the EEC

| № | Full name | Job Title |
|----|----------------------|---|
| 1 | Turmukhambetova A.A. | Acting Rector |
| 2 | Riklefs V.P. | Vice-Rector for Academic Affairs |
| 3 | Loseva i.v. | Dean of the School of Pharmacy |
| 4 | Bokaeva A.B. | Deputy Dean of the Research School |
| 5 | Abdullabekova R.M. | Head of Pharmacia EP |
| 6 | Khrustalev D.P. | Head of EP "TPP" |
| 7 | A.N. Urmashov | Compliance Officer |
| 8 | Kasatova A.M. | Director of DAP |
| 9 | Kravtsiv E.A. | Director of HRDD |
| 10 | Ya.O. Amirova | Director of the Library and Publishing Center |
| 11 | Mukhanova M.K. | Deputy Director of DEF |
| 12 | Bukeeva a.s. | Head of Strategic Development and Quality Management Department |
| 13 | Omarkulov B.K. | chairperson of TC |

Thus, when implementing the activities of the programme, namely, based on the results of the interview with the first head of the organization, members of the advisory body, in interviews with residents and teachers, compliance with the criteria of **Standard 1** was established. All participants in the educational process know the mission of the organization and the main goals of the educational

programme, took part in the formation of proposals for the formulation of the mission, while the content of strategic documents was brought to the attention of doctoral candidates through the website, social networks, information letters to medical and scientific organizations. The strategic plan of the organization for 5 years was reviewed, including such areas as educational, methodological, scientific, international cooperation, socio-educational, professional development, communication with practical organizations, which confirms the implementation of the accreditation standard and demonstrates the goals, objectives and prospects of the organization. From interviews with doctoral students, it was found that before the start of classes, teachers inform about the mission, work plans of the educational organization, tell where to get the necessary information about the educational programme, teachers, training bases. This indicates compliance with **Standard 2** in terms of adapting training to the needs of masters. Also, undergraduates are familiarized with the checklist for a comprehensive assessment of each discipline of EP at all stages of the educational process, which includes an assessment of current performance, interim certification (examination), etc. This indicates compliance with **standard 3**.

The organization's documents contain work programmes, EMCD, which define the goal, take into account the integration of practical and theoretical components, independent work. Compliance with the SCES and standard requirements has been established. Attending the practical lesson "Modern technologies of phytopreparations", the experts received convincing data that the training is carried out according to the plan, before the beginning of the lesson, the undergraduates answer the tests, receive feedback from the teacher, have the opportunity to improve the skill in the discipline. The organization ensures compliance with ethical aspects in the implementation of the educational programme, since the experts studied the Code of Business Ethics of NJSC "Medical University of Karaganda" on August 24, 2019 and during the interview, the undergraduates replied that they were informed about the content of this document.

The scientific component in the training of undergraduates was studied, while the following evidence was obtained in the content of the educational programme: there are disciplines "Management in Science", "History of Philosophy of Science", "Methodology of Scientific Research", etc. While attending the practical lesson "Modern technologies of phytopreparations" and talking to master's students, the experts saw that the organization contributes to the development of scientific, practical and pedagogical competencies of future masters, including on the equipment of the laboratory of the School of Pharmacy. At the same time, undergraduates form and deepen their theoretical knowledge obtained before entering the master's programme, develop communication skills in the learning process using such teaching methods as role-playing games (theater), analysis of situational tasks, work in small groups, etc.

Analysis of scientific and educational activities showed that the scientific basis and all the achievements of science in the relevant disciplines are taken into account, additions are made to the bibliography of syllabuses, the database of test tasks, which is constantly updated, and teachers apply them in classes.

A review of the monitoring and measurement tools showed that the organization had implemented an appropriate evaluation policy to assess the achievement of undergraduate students in a multifaceted manner. During the interview, the masters told about the forms of assessment and that they were satisfied with all forms of conducting classes. They also receive regular feedback from teachers and supervisors.

Approaches in the scientific management of undergraduates demonstrate high publication activity, the evidence base of experimental work, comprehensive research, the involvement of students to perform fragments of master's thesis works.

The system of appealing the results of the assessment is reflected in the document "Academic Policy" of MUK and during the period of work of the organization of education there were no precedents for the appeal. Thus, compliance with standard 3 has been established.

During the visit to the organization and during the interview with Atazhanova Gayane Abdulkhakimovna, Professor-Researcher of the School of Pharmacy, with Vlasova Lenina Mikhailovna, Associate Professor of the School of Pharmacy, and with other employees, the

commission made sure that there is a documentation system that is transparent and accessible to all teachers/research managers and employees. And includes such documents as annual operational plans, annual reports, provisions of divisions, contracts with teachers and master's students, provisions of existing commissions on improvement of quality of education, and educational and methodical documentation (work programme, work curricula, syllabuses, journals), evaluation tools (checklists, sheets), certificates. A review of the website has shown that its pages contain the necessary documents for undergraduates on the schedule, academic calendar, the list of approved theses, scientific internships, plans for scientific activities, including electronic databases and foreign databases (Scopus, ThomsonReuters, etc.) and information for undergraduates on educational, scientific and educational issues, which is regularly updated. The above information was obtained during an interview with the following employers:

1. Tolokonnikov Evgeny Gennadievich - Karaganda Pharmaceutical Plant, JSC MNP Holding Phytochemistry, Director;
2. Khabarov Ilya Andreevich - JSC Karaganda Pharmaceutical Complex, Head of Lyophilized Injectable Preparations Department;
3. Smirnova Olga Viktorovna - Department of the Medical and Pharmaceutical Control Committee for the Karaganda Region, Head;
4. Herman Evgenia Nikolaevna - Amanat Group of Pharmaceutical Companies LLP, Head of HR Department;
5. Zhabaeva Anara Nikhanbaevna - JSC MNP Holding Phytochemistry, head of the department of standardization, testing and quality control, etc.

The conversation with employees of practical bases included such issues as the implementation of dual training, the organization of practice, participation in round tables, conferences and allowed experts to learn about approaches to attracting employees of production bases for teaching, about the strategy and tactics of recruiting undergraduates for this specialty, the information security of the educational programme, as well as to identify problems in the management and development of human resources.

Interviews with 12 full-time teachers showed that there are both successes and problems in the management of education, depending on the specific base (admission of undergraduates to equipment and office equipment for the set of material for the thesis, time for maintaining medical records, independent work). Experts received answers about the programme of professional development of teachers, financing of this training, availability at teachers of certification on methods of teaching.

On the same day, experts studied materials on the admission of residents and the selection of teachers and established compliance with **standard 4**.

In order to verify the data of **Standard 5**, external experts received an opinion on personnel policy and approaches to the development of teachers' pedagogical competence, motivation to work with undergraduates, implementation of the scientific management system. Experts found that undergraduates initiate research topics for dissertation research, and scientific managers regularly consult and stimulate the need for additional training and independent work with literary sources.

During visits to clinical/production bases, where experts conducted a survey of resources, their compliance with training programmes, accessibility for teachers and undergraduates, as far as this equipment is modern and meets the needs of students and practical health/business. Experts obtained evidence of compliance with **Standard 6**, as well as validation of the information in the self-assessment report.

In order to validate the implementation of the self-assessment report and to obtain evidence on the quality of the programmes, interviews were conducted with residents in the specialty. Experts asked questions about the satisfaction with the training, the adequacy of time for the supervision of patients, work with medical documentation, satisfaction with teaching methods and the qualifications of teachers, social and moral support for students in need, participation in scientific work, the availability of a resource of international databases of professional literature.

In general, undergraduates are satisfied with the training and scientific guidance, assessment methods, and purposefully entered this organization, as they believe that the organization of education has good resources, image and international relations, at the same time, the wishes of undergraduates include issues related to the retraining of specialists in related specialties, for example, retraining in the specialty "Pharmacy" for persons who have graduated from the specialty "TPP".

The master students showed their commitment to the organization of education, were active in answering the questions of external experts, demonstrated their judgment on the organization of training and providing conditions for the performance of the dissertation research, the submission of a thesis for defense, assessment of their skills, advisory support, the opportunity to participate in the activities of the organization of education, funding. Experts studied the documents of doctoral students (portfolio, evaluation results, questionnaire results, abstracts, dissertations).

Interviews with 8 employers were conducted in a face-to-face mode and included such issues as: knowledge of the mission of the university, participation in the development of the mission and proposals in the strategic plan, participation in the work of advisory bodies, satisfaction with the basic knowledge and skills of undergraduates, participation in the training of undergraduates, providing the supervising department and undergraduates with the necessary resources for scientific and practical training and the formation of critical thinking, about the problems of interaction with departments, full employment of graduates upon completion of a master's degree, etc.

The review of resources showed that they correspond to the goals and objectives of educational activities, for example, the laboratory of the School of Pharmacy and the International Scientific and Production Holding "Phytochemistry" were visited, and employees of the organization of education provide collegial and ethical relations with medical personnel, the leadership of the clinical/production base to achieve the final results of undergraduates. A sufficient number of thematic patients, modern equipment and demonstrates accessibility to students are provided, and employees who simultaneously perform the roles of teachers and mentors (mentors) provide high-quality training in compliance with ethics and deontology. Before starting the relevant discipline of the educational programme, the master receives a syllabus from the teacher and knows what skills he must acquire and develop during the training.

The University supports undergraduates to participate in conferences, scientific internships, practices, etc.

On the last day of the visit to the organization, a meeting of EEC members was held on the results of the external evaluation. The final discussion of the results of the external evaluation of the educational programme, the study of documents, the results of the interview, questionnaires was held. EEC members started designing the final EEC report. The results of the external evaluation are summarized. The experts individually completed the "Quality Profile and Criteria for External Evaluation of the Educational Programme 7M07201-Pharmaceutical Production Technology for Compliance with the ECAQA Accreditation Standards". Members of the EEC made the following recommendations: the development of joint educational programmes, including for two-degree studies, the passage of all undergraduates of the LEC on master's thesis, etc. Recommendations for improving the educational programme were discussed, and the chairperson of Kauysheva Almagul Amangeldinovna held a final open vote on the recommendations for the ECAQA Accreditation Council regarding the period of accreditation of the educational programme of the master's degree in TPP.

For the work of the EEC, comfortable conditions were created, access to all the necessary information and material resources was organized. The Commission notes the high level of corporate culture of the NEI "KRMU", the high degree of openness of the team in providing information to the members of the EEC.

At the end of the programme of the visit, the chairperson of the EEC for the management and employees of the organization of education announced recommendations on the results of an external assessment within the framework of specialized accreditation.

4. Results of the survey

The observer for ECAQA Umarova M.A. conducted an online questionnaire on the resource <https://webanketa.com/> during the period of 27-29.04.22.

The survey of undergraduates includes 39 questions.

A total of 17 people responded (a total of 10 undergraduates for the current year).

Respondents answered questions on a degree of satisfaction with the educational institution as follows: that will recommend to study in this organization of education to the acquaintances, friends, relatives 70,59% of respondents; partially - 23,53%; doubt 5,88% and 0% won't be.

On organizational questions: programme managers and teachers are aware of problems of students connected with training 82,35% of respondents answered positively, partially agree – 5,88%, completely disagree -5,88% and doubt -5,88%;

88.24% of students answered constantly about the involvement of students by programme managers and teachers, in the work of advisory bodies (methodological council, scientific council, committees of educational programmes), 0% - do not involve, 5.88% answered sometimes, 5.88% of respondents doubt the answer.

When asked about the degree of satisfaction with the conditions and equipment of the classrooms, 94.12 per cent of the classrooms of this educational institution were completely satisfied, 5.88 per cent were partially satisfied, 0 per cent were completely dissatisfied and partially dissatisfied.

In this organization of education conditions for rest and meals of pupils (rooms for rest, benches/gazebos on the territory, a buffet-canteen) in breaks between occupations – agree completely 100%, not completely and disagree -0% are created.

Office equipment (computers, laptops, printers) is available for students in classrooms and on the basis of practice – 76.47% fully agree, 23.53% partially agree, 0% completely and partially disagree.

Teachers provide students with methodological and didactic materials, additional literature to prepare for classes - fully agree 82.35%, partially agree 11.76%, completely disagree 0%, partially disagree 5.88% doubt the answer 0%.

In the organization of education, there is access to the participation of students in research work - 94.12% agree completely, 5.88% partially agree, 0% completely disagree and partially disagree, 0% doubt the answer.

Respondents answered the following questions about the degree of satisfaction with the library fund/resources: 88.24% were fully satisfied, 11.76% were partially satisfied, 0% were not fully and partially satisfied.

Respondents answered questions about access to electronic educational resources as follows: 82.35% were completely satisfied, 17.65% were partially satisfied, 0% were completely and partially dissatisfied.

Respondents answered the following questions about the availability of medical services for students: 76.47% were completely satisfied, 11.76% were partially satisfied, 0% were completely and partially dissatisfied, and 11.76% were unanswered.

Respondents answered questions about satisfaction with activity of mentors, supervisors, scientific leaders as follows: are satisfied completely 88,24%, satisfied partially 11,76%, dissatisfied respondents completely and partially 0%.

Teachers and employees of the organization of education respect students – agree 88.24%, disagree 5.88%, no answer 5.88%.

In the organization of education there are and social programmes of support of students – agree 82,35%, disagree 0%, didn't hear about such programmes 17,65%, there is no answer 0%.

Respondents answered questions about existence in the organization of education of service of consulting of career of the pupil as follows: yes, there is – 64,71%, no – 0%, didn't hear about such 23,53%, I doubt with the answer 11,76%.

The organization of education has established a system of independent education for students, residents, undergraduates, doctoral students and students – 82.35% fully agree, 11.76% partially agree, 0% completely disagree, 0% partially disagree, 5.88% doubt the answer.

Rate the organization of clinical (practical) training - excellent 64.71%, good 23.53%, I cannot rate 11.76%, satisfactory and unsatisfactory 0%.

There is sufficient time for practical training (patient supervision, clinical rounds, clinical reviews, assistance in operations, work in laboratories and in pharmaceutical production) – 94.12% completely agree, 0% partially agree, 0% completely disagree, 0% partially disagree, 5.88% doubt the answer.

I am satisfied with the schedule of classes in the disciplines of the educational programme – fully 94.12%, partially 5.88%, not satisfied with 0%, I doubt with the answer 0%.

I am satisfied with the methods of assessing my knowledge and skills – fully 76.47%, partially 23.53%, not satisfied 0%, would like to change them 0%, I doubt with the answer 0%.

The content of the educational programme (list of disciplines) for the chosen specialty meets my expectations – fully 76.47%, partially 17.65%, no 5.88%, I doubt with the answer 0%.

Teachers in class use active and interactive methods of teaching – regularly 88.24%, sometimes 5.88%, rarely 5.88%, I doubt with the answer 0%.

When asked how often the teacher is late for the beginning of classes, respondents answered as follows: there was no such 82,35%, sometimes 5,88%, systematically 5,88%, I don't know what to answer 5,88%.

After completing the classes, does the teacher give you feedback (listen to your opinion, conduct a mini-questionnaire, work on mistakes) – constantly 76.47%, sometimes 11.76%, rarely 11.76%

The teacher (mentor, curator) of this organization of education is an example for me as a professional doctor, a person (ethics, communications, appearance, speech) – fully agree 76.47%, completely disagree 5.88%, not all teachers of this organization of education 17.65%, I doubt the answer 0%.

Sufficient number of patients for curation or assistance in operations – fully satisfied 52.94%, partially satisfied 5.88%, completely dissatisfied 0%, partially dissatisfied 0%, no response 41.18%.

On a question, whether respondents like to study in this organization of education, answers are received: completely agree with this statement 76,47%, partially agree 23,53%, completely disagree 0%, partially disagree 0%, there is no opinion 0%.

I am satisfied with the relationship with my fellow students, colleagues, medical staff – fully 82.35%, partially 17.65%, no 0%.

Did you personally experience a negative attitude of teachers? – no 82.35%, it was deservedly 5.88%, unfairly 5.88%, no answer 5.88%.

On a question, whether respondents are happy that study in this organization of education, answers are received: yes, completely 76,47%, yes, partially 17,65%, no, disappointed 5,88%, no, I experience difficulties in training 0%, I don't know how to answer 0%.

Respondents answered the question about the accessibility of the management of the organization of education for students as follows: 94.12% are available, 5.88% are not available.

Do you currently do research work? – Yes 94.12%, no 0%, I do not want to do research 5.88%.

Do you personally have printed works (articles, abstracts, reviews) published during your studies in this educational institution? – yes, one 5.88%, more than one 47.06%, none 0%, I plan to publish in the near future 47.06%, I have just entered the study programme 0%, there is no answer 0%.

Do you think this organization of education allows you to acquire the necessary knowledge and skills in the specialty you choose? - Yes, I am sure of it 88.24%, I am not sure of it 5.88%, I cannot answer this question 5.88%, I would like to believe in it 0%, I begin to doubt it 0%.

Are you satisfied with the organization of teaching? – fully 82.35%, partially 11.76%, no 0%, I doubt with the answer 5.88%.

Your opinion on the work of the External Expert Commission on the accreditation of this organization of education? – positive 76.47%, I doubt with the answer 23.53%.

Do you think it is necessary to conduct accreditation of educational organizations or educational programmes? – yes 94.12%, no 5.88%

Did your supervisors and/or teachers involve you in activities to prepare for institutional or specialized (programme) accreditation? – yes, when preparing the self-assessment report 29.41%, yes, to organize a meeting of external experts 5.88%, yes, at all stages of preparation 11.76%, yes, since I speak a foreign language 11.76%, I refused to participate (for a good reason) 0%, no 41.18%, first heard about accreditation when the commission arrived 0%

The results of the survey of students as a whole show satisfaction with the educational process, methodological and resource support, teachers' competencies, students' social skills, as well as evidence of feedback from the faculty, satisfaction with the knowledge assessment system.

The analysis of the teacher survey (TS), including 25 questions of the questionnaire, showed that out of 12 respondents, pedagogical experience up to 5 years – 8.33% of TS, up to 10 years – 16.78% of TS, over 10 years - 75% of TS. Of these, 75% are completely satisfied with the organization of the educational process, partly 25%, the principles of ethics and subordination are observed, with which 83.33% agree, partly 16.67% of respondents surveyed. The organization of work and workplaces are fully satisfied with 75% of the teaching staff, partly with 16.67%, partly with 8.33%. According to 75% of respondents, there are opportunities for career growth and development of faculty competencies. It is possible to engage in R&D for 50% of the total number of TS, partly for 41.67%. According to the results of the survey, it was revealed that 8.33% of the surveyed respondents are not satisfied with the salary, which the university management will have to pay attention to. In NJSC "Medical University of Karaganda" 83.33% of teaching staff are completely satisfied with the work of the personnel service, partially satisfied with 16.67%. According to the results of the survey of the surveyed faculty, 58.33% passed the TPP during the current year, 16.67 more than 5 years ago. Only 41.67 per cent of the respondents were fully satisfied with the provision of teaching resources, 41.67 per cent were partially satisfied and 8.33 per cent were not fully satisfied. 91.67% of respondents have the opportunity to realize as a professional in the specialty.

Only 50% of the teaching staff actively participated in the development of the EP, and only 33.33% of the electives were involved. Applications for the purchase of methodological and didactic materials, office equipment, stationery to ensure the educational process in the organization are timely carried out according to 58.33% of the teaching staff, which will have to be paid attention to by the university management.

Attention should be paid to the support of the PPP for participation in conferences at the international and republican levels, as 33.33% prefer not to address the leadership. On access to clinical databases, 41.67% of students expressed full consent, 33.33% partial consent. In terms of social support, 58.33% of them confirm their implementation. 66.67% answered in the affirmative to the question whether the heads of the organization listen to your opinion regarding the questions on the educational process, research, clinical work.

With regard to the teaching methods used, the majority of teaching staff prefer lectures – 83.33%; oral analysis – 66.67%; rewriting of thematic information from monographs – 8.33%, problem-oriented training – 66.67%, interactive training – 58.33%, performance of abstracts - 41.67%, performance of projects, coursework – 50%; practical classes in clinical skills at the training and clinical center – 8.33%, analysis of situational tasks – 75%, compilation and solution of cases – 16.67%, oral survey of students – 58.33%; solution of tests – 33.33%; work in small groups (TBL) – 75%, written completion of tasks - 66.67%.

When asked whether this questionnaire is useful for developing recommendations for improving the key areas of your organization's activities, 75% of the faculty answered with full agreement.

Regarding the preparation of the University for accreditation, only 25% of teaching staff were involved in the collection of information for the annexes to the self-assessment report, 50% of teaching staff were included in the internal self-assessment commission, 8.33% were engaged in technical support before the meeting of the external expert commission, wrote sections of the self-assessment report 41.67%.

When applying for inclusion in the accreditation commissions of ECAQA, 41.67% did not express interest, and 50% responded with consent. On a question of whether EEC can cover all questions on EP, 75% answered positively, only 25% doubted with the answer. From all actions of EEC 75% of TS answered that all above; 8,33% doubted with the answer; 8,33% noted interviews with representatives of employers; 8,33% noted interviews with heads of educational programmes (heads of departments, deans).

In general, it can be noted that the organization of the scientific and educational process, the teaching staff of the NJSC "Medical University of Karaganda" are satisfied in most cases, but it is recommended to pay attention to the support of the teaching staff for participation in conferences of international and national level, improving the material and technical base. It is necessary to involve the majority of faculty in the preparation of self-assessment reports and the collection of supporting documents in order for faculty to be interested in improving the quality of training, as well as involving them as experts to conduct accreditation of other universities.

The results of the survey in general demonstrate satisfaction with the educational process, the resources of practical bases, the competencies of teachers, and also indicate the existence of a centralized management of the educational programme "Pharmaceutical Production Technology".

5. Analysis for compliance with accreditation standards based on the results of an external evaluation of the 7M07201-Pharmaceutical Production Technology Programme of the Medical University of Karaganda, NJSC

Standard 1: MISSION AND OUTCOMES

Evidence of compliance:

The mission of the Master's degree programme 7M07201 - "Pharmaceutical Production Technology" is presented in the form of the goal of the educational programme: to train professionals in the field of applied medical and pharmaceutical sciences and pharmaceutical practice that meet the requirements of the national health care system and international standards.

The mission of the Master's degree programme 7M07201 - "Pharmaceutical production technology" is developed in accordance with the institutional (university-wide) Mission: training of professionals meeting the requirements of the national health system and international standards through the introduction of innovations in education, science and practice

The final results of the EP training were developed in accordance with the competencies of MUK NJSC, determined on the basis of the Dublin descriptors and aimed at the formation of a future specialist of both basic and general professional competencies. The final results of the training are aimed at demonstrating the theoretical foundations of all processes of pharmaceutical activity, the practice of scientific research in the development of drugs, marketing activities.

The Master's Degree Programme 7M07201 - "Pharmaceutical Production Technology" defines the final learning outcomes that Master's students should have after completing the Master's degree programme. The report does not indicate the mission of the EP, therefore, it is recommended to indicate it in the report separately, along with the University Mission and the Purpose of the EP. The pharmacy school must be equipped annually with missing equipment and tools, excipients and reagents.

Conclusions of the EEC on the criteria. Compliant with 4 standards: fully – 3, partially – 1.

Standard 1: not fully implemented

Recommendations for improvement identified during the external visit:

- 1) More clearly articulate the mission of the educational programme;
- 2) Improvement of the material and technical base of the School of Pharmacy on an ongoing basis for the qualitative preparation of research works of undergraduates;

Standard 2: EDUCATIONAL PROCESS

Evidence of compliance:

In order to form an interest in pedagogical, pharmaceutical and research activities in the educational process, interactive teaching methods are used in the master's programme at the university, based on constant monitoring of the results of mastering the educational programme, current control and interaction (interactivity) of the teacher and the student throughout the learning process, such as: problem lecture, lecture discussion, lecture-consultation, lecture-information, lecture-conversation, lecture-press-conference, TBL, PBL, project method, business game, solving situational problems, analysis of scientific publications, brainstorming and others.

When determining the content of the EP, the disciplines are structured into logically completed blocks. The interdisciplinary connection can be seen in the curriculum, in the syllabuses of academic disciplines, taking into account the specifics of the educational programme. Modular educational programmes enable undergraduates to plan and implement an individual learning path throughout their studies. Elective disciplines are selected with the help of advisors and teaching staff of the School of Pharmacy, undergraduates have the opportunity to form a component of their choice independently, taking into account the requirements of the labor market. EEC recommends to form directions of training on medical devices, production of biological preparations, perfumery and cosmetic products, etc.

Conclusions of the EEC on the criteria. Compliant with 6 standards: fully – 5, partially -1.

Standard 2: not fully implemented

Recommendations for improvement identified during the external visit:

1) Development of training areas (individual educational trajectories) in the specialty "TPP" (Production and standardization of medical devices, biotechnology and bioengineering, Technology of cosmetic and parapharmaceutical products, Production of radiopharmaceuticals);

2) Expanding the partnership with employers of research bases for internships for undergraduates (organization of round tables, conducting questionnaires, etc.).

3) Expanding the search for partner universities and developing joint educational programmes, including for two-degree studies;

4) Development of dual education, training through research and multilingualism programme;

5) Introduction of a portfolio method for formative evaluation of undergraduates

6) Improvement of evaluation sheets for the defense of master's thesis works.

7) Further improvement of educational activities in accordance with the needs of the labor market in the areas of training: "Production and standardization of medical devices", "Production of radiopharmaceuticals", etc.;

8) Recommendation on changing the concept of medical devices to medical devices according to RD.

Standard 3: ASSESSMENT OF STUDENT LEARNING

Evidence of compliance:

A comprehensive assessment of undergraduates is carried out by each discipline of the EP at all stages of the educational process and includes an assessment of current performance, interim certification (examination). Interim certification of students is carried out in accordance with the academic calendar, work curricula and syllabuses of disciplines. Each academic period ends with a period of interim certification of students, which is carried out in the form of passing the final control of disciplines and reports on professional practice. The form of the final control is determined by the working curriculum. Acceptable forms of conducting the final control or its stage are: computer testing based on clinical cases and/or situational tasks; written examination (WE); project/ course work protection; OSCE (GOSCE)/OSSE; assessment of practical/ clinical skills according to a standardized checklist; portfolio protection; academic certification; report on practice.

Heads of educational programmes, teachers, SQAC, university administration receive feedback from students after passing the assessment procedure on students' satisfaction with the teaching

methods used, the quality of the educational profession, the assessment procedure by conducting a survey (questionnaires, focus groups method, etc.). The results are considered at the meetings of departments/schools, are reflected in the minutes of the meetings.

The survey data are used to analyze the existing problems in the process of implementing the EP, including the evaluation system.

The conclusions of the EEC meet the criteria of 4 standards: 4 in full.

Standard 3: Fully implemented.

Recommendations for improvement identified during the external visit: none

Standard 4: STUDENTS

Evidence of compliance:

For those enrolling in the master's programme, the admission commission provided advice on the selected group of educational programmes of postgraduate education, familiarization with the examination procedure.

Applications for admission to the magistracy are received by the admission commission within the established timeframe. Foreign nationals are admitted on a fee-for-service basis. The annual revision of the admission policy to the master's programme is carried out in accordance with the regulatory documents of the authorized body, internal decisions of MUK, taking into account internal factors, as well as the requirements of the labor market.

The entrance exams involve 2 stages – assessment of knowledge of a foreign language and testing (CT) in specialized disciplines of the previous level of study. There is no additional examination test for applicants at the EP TPP.

Entry of persons into the master's degree programme is carried out on the basis of the results of CT in accordance with the Scale of the 150-point system of assessments for CT in the master's degree programme with the Kazakh or Russian language of instruction.

Conclusions of the EEC on the criteria. Compliant with 6 standards: full – 6.

Standard 4: Implemented

Recommendations for improvement identified during the external visit: none

Standard 5: STAFFING

Evidence of compliance:

The administration of the university with its subdivisions: the rectorate, the dean's office of the school of pharmacy, the Department of Academic Work, the Department of Human Resources Management, the Department of International Cooperation, etc. also take part in the resource support of the EP and organizational work. To ensure the compliance of the profile of the teaching staff with the educational programme, the following is carried out:

- regular analysis of the organizational structure for compliance with strategic goals and objectives, division of functions and responsibilities of employees;
- analysis of the compliance of the professional competence and competencies of employees with the requirements for the position;
- assessment of the faculty competencies in accordance with the requirements of the SCES.

Competence assessment is carried out in the form of testing by an automated computer method by measuring theoretical knowledge of the discipline taught and pedagogy. The threshold for passing the assessment is 60% in the discipline taught and 60% in pedagogy;

Professional development of employees is carried out at the expense of the employer, own funds of employees, and also at the expense of other non-prohibited sources. Scientific indicators in the teaching staff of the School of Pharmacy are presented at the average level. Not all teachers have the Hirsch index, and not all teachers participate in scientific and technical projects at the university, republican and international levels. I do not sufficiently participate in the visiting professors programme, internal and external academic mobility, scientific internships "Bolashak". Not all teaching staff are proficient in the required level of English.

Conclusions of the EEC on the criteria. Compliant with 4 standards: fully – 3, partially – 1.

Standard 2: not fully implemented

Recommendations for improvement identified during the external visit:

- 1) Increasing the scientific indicators of employees – the Hirsch Index, the presence of articles in peer-reviewed journals, participation in the STP of the Republican and international levels;
- 2) Improvement of pedagogical skills through participation in the Academic Mobility Programme and visits of faculty to universities and research centers of near and far abroad, as well as the "Bolashak" scientific internship programme.
- 3) Improving the level of proficiency of foreign language teaching staff.

Standard 6: EDUCATIONAL RESOURCES, SETTINGS AND SCHOLARSHIP

Evidence of compliance:

The main implementation of the educational programme of the master's degree 7M07204 - "technology of pharmaceutical production" is carried out in classrooms, classes and educational and scientific laboratories of the School of Pharmacy (3 chemical laboratories, 1 specialized audience for pharmacological research, 1 - on the technology of drugs), in the collective use laboratory of the National Academy of Pharmacy, as well as on the educational bases of departments and schools involved in the educational process of this EP (biochemical, microbiological laboratories).

The research base of the external partners of the university within the framework of the current Conortium "Pharmaceutical Cluster", the agreement on the creation of which was signed by 17 participants, including JSC IR&PH "Phytochemistry", LLP "Karaganda Pharmaceutical Plant", RSE on REM "NCELSIMN&MT of the Ministry of Health and Social Development of the Republic of Karaganda", "Bayanaul National Nature Park", PC "Kyzyl May", LLP "Center for Phytotherapy" can be used to conduct scientific research of undergraduates.

Conclusions of the EEC on the criteria. Compliant with 2 standards: full – 2.

Standard 6: Fully implemented

Recommendations for improvement identified during the external visit:

- 1) Inclusion of the journal "Medicine and Ecology" in the list of journals included in CCES;
- 2) Organization of retraining of specialists from related specialties "TPP" and "Pharmacy" in the framework of their advanced training;
- 3) Consideration of dissertations of master's students in the Bioethics Commission, regardless of the presence or absence of a fragment on non-clinical and clinical studies.

Standard 7: MONITORING AND EVALUATION OF THE EDUCATIONAL PROCESS

Evidence of compliance:

The educational programme is developed on the basis of the principles, methodology and procedure for the development of modular learning, in which the effectiveness of learning outcomes is achieved by observing an integrated approach, both the educational programmes themselves and the curricula and academic disciplines are formed according to the modular principle. The main mechanism of internal quality assessment is the behavior of a comprehensive examination of various aspects of the implementation of the educational programme (EP) – assessment of the compliance of the content of the EP with modern trends in the field of pharmaceutical science and practice, assessment of the degree of satisfaction of students with the quality of the educational process, and employers – the quality of graduates of the programme, assessment of the resource provision of the educational process. Quality Assurance Commissions have been established in schools to perform this function.

If necessary, the educational programme is updated - the content of the structural components of the programme is updated on the basis of taking into account new achievements of science, changes in

regulatory documents, recommendations/comments based on the results of internal and external monitoring of the quality of EP.

The educational programme undergoes quality monitoring at least once every 3 years, in case of preparation for specialized accreditation of EP, quality monitoring is carried out unscheduled. In this case, the head of the EP with the working group prepares a report on the self-assessment of the EP, the SQAC reviews the self-assessment report, then the SQAC conducts monitoring (visit) with an assessment of supporting documents and makes recommendations for improvement. The results of feedback are analyzed and discussed at meetings of departments, councils of the School and the Senate.

Feedback results are taken into account when planning work to improve the EP. Due to the small number of students at the Master's degree programme, the most effective information collection is interviewing. The results are discussed at the meetings of the Department/School Council. Educational programmes should be reviewed by employers and teaching staff of other partner universities to objectively assess their compliance with market requirements. Insufficiently carried out harmonization of EP with the programmes of partner universities, which would contribute to the development of the programme of academic mobility of faculty and students.

Conclusions of the EEC on the criteria. Compliant with 3 standards: fully -2, partially – 1.

Standard 7: not fully implemented

Recommendations for improvement identified during the external visit:

- 1) Organization of review of the educational programme by independent experts.
- 2) Harmonization of the educational programme with the programmes of leading universities of the Republic of Kazakhstan and foreign universities for the implementation of academic mobility;

Standard 8: GOVERNANCE AND ADMINISTRATION

Evidence of compliance:

NJSC MUK management is determined by the approved Management Structure, which is updated as necessary, which ensures the efficiency of the university as a whole and the implementation of mechanisms for improving the EP. The latest approved version of the management structure is posted for review by university employees on the corporate portal. The university has introduced a corporate governance system.

The organizational structure of NJSC MUK (approved by the Decision of the Board of Directors on August 26, 21) is determined in accordance with the mission, goals and objectives, process map, historical aspects of the development of the university, training needs for personnel with higher and postgraduate medical education, by creating the necessary conditions for mastering educational programmes aimed at professional development and personal development based on the achievements of science and practice. Visiting professors from other universities are not invited enough to integrate the issues of the scientific and educational process and the exchange of experience in the work of teaching staff, the programme of visiting professors is not fully implemented, joint scientific research is carried out within the framework of master's and doctoral dissertations.

Conclusions of the EEC on the criteria. Compliant with 11 standards: fully -10, partially -1.

Standard 8: partially implemented

Recommendations for improvement identified during the external visit:

- 1) Improvement of funding mechanisms for visiting professors and scientific internships abroad;
- 2) Development of strategic partnership with foreign universities for the implementation of the Master's degree programme.

Standard 9: CONTINUOUS RENEWAL

Evidence of compliance:

NJSC MUK is a dynamically developing educational institution with a socially responsible approach to the training of medical personnel and technologists of pharmaceutical production at the national and international levels. In recent years, in order to ensure the constant updating of processes at the University and increase the satisfaction of students and employers, a number of measures have been taken to revise the internal procedures, the organizational structure of the university, which avoids duplication of certain functions and improves the efficiency of personnel. The University continuously complements and improves the processes of continuous monitoring, evaluation, analysis and improvement of educational services, taking into account the objectives of national legislation, requirements and expectations of stakeholders, contributing to the development of high-quality education based on competencies and learning outcomes.

The development in the field of scientific research, innovative technologies used for the development of EP, as well as existing socio-economic requirements in the labor market in the field of professional services of specialists in the field of pharmaceutical technology requires constant monitoring of the content of EP.

Conclusions of the EEC on the criteria. Compliant with 4 standards: fully - 4.

Standard 9: Implemented

Recommendations for improvement identified during the external visit: none

The compliance of the educational programme with all the accreditation criteria has been established.

Of the 44 criteria, 39 are fully met and 5 are partially met.

Recommendations for improvement in the specialty. 7M07201 “Pharmaceutical production technology”

Standard 1:

- 1) More clearly articulate the mission of the educational programme;
- 2) Improvement of the material and technical base of the School of Pharmacy on an ongoing basis for the qualitative preparation of research works of undergraduates;

Standard 2:

- 3) Development of training areas (individual educational trajectories) in the specialty "TPP" (Production and standardization of medical devices, biotechnology and bioengineering, Technology of cosmetic and parapharmaceutical products, Production of radiopharmaceuticals);

- 4) Expanding the partnership with employers of research bases for internships for undergraduates (organization of round tables, conducting questionnaires, etc.).

- 5) Expanding the search for partner universities and developing joint educational programmes, including for two-degree studies;

- 6) Development of dual education, training through research and multilingualism programme;

- 7) Introduction of a portfolio method for formative evaluation of undergraduates

- 8) Improvement of evaluation sheets for the defense of master's thesis works.

- 9) Further improvement of educational activities in accordance with the needs of the labor market in the areas of training: "Production and standardization of medical devices", "Production of radiopharmaceuticals", etc.;

- 10) Amend the documentation in relation to the term "medical device" to "medical devices in accordance with the regulatory documentation".

Standard 5:

- 11) Increasing the scientific indicators of employees – the Hirsch Index, the presence of articles in peer-reviewed journals, participation in the STP of the Republican and international levels;

- 12) Improvement of pedagogical skills through participation in the Academic Mobility Programme and visits of faculty to universities and research centers of near and far abroad, as well as the "Bolashak" scientific internship programme.

- 13) Improving the level of proficiency in a foreign language;

Standard 6:

- 14) Inclusion of the journal "Medicine and Ecology" in the list of journals included in CCES;
- 15) Organization of retraining of specialists from related specialties "TPP" and "Pharmacy" in the framework of their advanced training;
- 16) Consideration of dissertations of master's students in the Bioethics Commission, regardless of the presence or absence of a fragment on non-clinical and clinical studies.

Standard 7:

- 17) Review the educational programme by independent experts.
- 18) Harmonize the educational programme with the programmes of leading universities of the Republic of Kazakhstan and foreign universities to implement academic mobility;

Standard 8:

- 19) Improve funding mechanisms for visiting professors and academic internships abroad;
- 20) To develop a strategic partnership with foreign universities for the implementation of the Master's degree programme.

7. Recommendation to the ECAQA Accreditation Council

Members of the EEC found the PhD study programme in 7M07201- "PHARMACEUTICAL PRODUCTION TECHNOLOGY" to be in line with the Accreditation Standards and agreed to recommend to the ECAQA Accreditation Council that the programme be accredited for a period of 5 years.

| | Full name |
|-------------------------------------|-------------------------------------|
| chairperson | KAUYSHEVA ALMAGUL AMANGELDINOVNA |
| Foreign Expert | RAKHIMOV BAHODIR BAHTIYOR SHULLI |
| Academic Expert | OSTENOVA GULBARAM OMARGAZIEVA |
| Academic Expert | TULEUTAEVA RAYKHAN ESENZHANOVNA |
| Employers' representative | EKATERINA KAMYLEVNA PAVLOVA |
| Representative of undergraduates | MAHMOUD NAZERKE SAIDUALIKYZY |













Observer for ECAQA - M.A. Umarova

Quality profile and criteria for external evaluation of the educational programme (generalization)

| Standard | Evaluation Criteria | Number of standards | Estimation | | |
|----------|--|---------------------|-----------------|---------------------|---------------|
| | | | Fully compliant | Partially compliant | Not compliant |
| 1 | MISSION AND OUTCOMES | 4 | 3 | 1 | |
| 2 | EDUCATIONAL PROCESS | 6 | 5 | 1 | |
| 3 | ASSESSMENT OF STUDENT LEARNING | 4 | 4 | | |
| 4 | STUDENTS | 6 | 6 | | |
| 5 | STAFFING | 4 | 3 | 1 | |
| 6 | EDUCATIONAL RESOURCES, SETTINGS AND SCHOLARSHIP | 2 | 2 | | |
| 7 | MONITORING AND EVALUATION OF THE EDUCATIONAL PROCESS | 3 | 2 | 1 | |
| 8 | GOVERNANCE AND ADMINISTRATION | 11 | 10 | 1 | |
| 9 | CONTINUOUS RENEWAL | 4 | 4 | | |
| | Total: | 44 | 39 | 5 | |
| | | | | | |

List of documents studied by the members of the EEC within the framework of accreditation period of external expert evaluation: April 27-29, 2022

| № | Names of documents | Quantity | Date of approval |
|----------|---|-----------------|-------------------------|
| 1. | Educational programme 8D10139 public health (order No.30 of the Board of Directors) | 1 | 24.06.21 |
| 2. | Order of Karaganda State Medical University No.39 dated 01.03.2022 "On Referral for Training" | 1 | 01.03.2022 |
| 3. | Extract from Minutes No.11, 31.08.2021 of the Extraordinary Meeting of the Council of the Research School | 1 | 31.08.2021 |
| 4. | Decision of the Committee on Bioethics of the MUK NJSC, Meeting No.8, Minutes No.8 dated 10.11.2020. Main researchers: K.E. Nukestaeva | 1 | 10.11.2020 |
| 5. | Decision of the Committee on Bioethics of the NJSC MUK, Meeting No.20, Minutes No.20 dated May 19, 2021. Main researchers: Kuanysh Zh.M. | 1 | 19.05.2021 |
| 6. | Order No.1 on the Research School. Approved on 01.09.2021 Dean of the Research School: T.T. Edilbayeva | 1 | 01.09.2021 |
| 7. | Regulations on postdoctoral studies in the National Academy of Sciences of the Ministry OF Education and Science. Approved on 10.06.2019 Minutes No.1 of the Management Board | 1 | 10.06.2019 |
| 8. | Regulations on doctoral studies in the NJSC "MUK". Approved on 26.08.2019. Minutes No.8 of the Management Board | 1 | 26.08.2019 |
| 9. | Regulations on the remuneration of the personnel of the NJSC "MUK", Approved on 16.08.2022. Minutes No.22 of the Management Board | 1 | 16.08.2022 |
| 10. | Work plan of the Research School Quality Assurance Commission. Approved on 31.08.2021 by the Vice-Rector for Academic Affairs | 1 | 31.08.2021 |
| 11. | Order No. 43 dated 04.03.2022 "On Referral for Internship" | 1 | 04.03.2022 |
| 12. | Academic policy dated 27.08.21 (pr.1 of the Senate) | 1 | 27.08.2021 |
| 13. | The contract of the international project Erasmus+ "SPRING". | 1 | 2019-2022 |
| 14. | Information on internal quality monitoring of EP NJSC MUK. | 1 | 2019-2022 |
| 15. | List of projects performed on the basis of paintwork 2021-2022 | 1 | 2019-2022 |
| 16. | Regulation on the Committee on Bioethics of NJSC MUK. Approved on 20.04.2021. Minutes No.12 of the Management Board | 1 | 20.04.2021 |
| 17. | Report of the NJSC MUK Committee on Bioethics | 1 | 2019-2022 |

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|-----|--|--|--|
| 18. | Link to Google Drive: https://drive.google.com/drive/folders/1ETcEJ-KWuvJKAXdBBVtU1NJzpsO4wMgp | | |
|-----|--|--|--|

ECAQA