

To Eurasian Centre for Accreditation  
and Quality Assurance in Higher  
Education and Health Care  
15.06.2023

**REPORT OF THE EXTERNAL EXPERT COMMISSION ON THE RESULTS OF  
EVALUATION OF THE EDUCATIONAL PROGRAMME ON SPECIALTY 7R01109 -  
CLINICAL PHARMACOLOGY FOR COMPLIANCE WITH THE STANDARDS OF  
ACCREDITATION OF POSTGRADUATE EDUCATION PROGRAMMES (RESIDENCY  
SPECIALTY) OF MEDICAL EDUCATIONAL INSTITUTIONS**

KARAGANDA MEDICAL UNIVERSITY NON-PROFIT JOINT STOCK COMPANY  
(KMU NJSC)

**external evaluation period: 24-26 May 2023**

**Karaganda, 2023**

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## LIST OF DESIGNATIONS AND ABBREVIATIONS

Abbreviation	Designation
AC	Academic Committee
AP	Academic Policies
HEI	Higher Education Institution
SCES	State Comprehensive Education Standard
DAA	Department of Academic Affairs
DET	Distance Education Technologies
DIID	Department of Informatisation and Infrastructure Development
HRMD	Human Resources Management Department
USHEM	Unified System of Higher Education Management
FAC	Final Attestation Commission
FA	Final Attestation
IEP	Individual Education Plan
IWP	Individual Work Plan
SC	Selection Component
IHIS	Integrated Healthcare Information System
CED	Catalogue of Elective Disciplines
MH	Ministry of Health
LEB	Local Executive Board
KMU NJSC	Karaganda Medical University Non-Profit Joint Stock Company
NCIE	National Centre for Independent Examinations
OCCH	Oblast Children's Clinical Hospital
OCH	Oblast Clinical Hospital
PSA	Practical Skills Assessment
ICU	Intensive Care Unit
TRA	Tolerance Rating Assessment
OSCE	Objective Structured Clinical Examination
PS	Principal Subject
PHC	Primary Health Care
HETP	Higher-Education Teaching Personnel
RK	Republic of Kazakhstan
WC	Working Curriculum
SSS	Student Support Services
IWR	Independent Work Of Residents
IWRT	Independent Work Of Residents With Teachers
EPMS	Employee Performance Management System
TByte	Terabyte
VET	Technical and Vocational Education
LLP	Limited Liability Partnership
MC	Model Curriculum
TP	Teaching Package
CSET	Centre for Simulation and Educational Technologies
SRPD	School of Residency and Professional Development
SRMEE	Association for Medical Education in Europe
CBL	Clinical Based Learning
ECTS	European Credit Transfer and Accumulation System
GPA	Grade Point Average

ON	Learning Outcomes
PBL	Problem-Based Learning
RBL	Research-Based Learning
TBL	Team- Based Learning

### 1. Members of the external expert committee

In accordance with the ECAQA order No. 15 of 11.05.2023, an External Expert Commission (hereinafter referred to as EEC) was formed to conduct an external evaluation of the educational programme of the residency in the 7R01109 Clinical Pharmacology specialty in the period of 24-26 May 2023 with the following membership:

No	Status as a member of the EEC	Full name	Academic degree/title, position, place of work/place of study, course, speciality
1	Chairman	Khatimya Ilyasovna Kudabaeva	Associate Professor, Candidate of Medical Sciences, Professor of the Department of Internal Diseases №1 Marat Ospanov Western Kazakhstan Medical University NJSC (non-public joint stock company)
2	Foreign expert	Sergey Aleksandrovich Ryzhkin	Doctor of Medical Sciences, Head of the Department of Radiotherapy and Radiology named after Academician A.S. Pavlov, Head of the Department of Additional Professional Education of the Russian Medical Academy of Continuous Professional Development (Moscow), Scientific Secretary of the Department of Medical and Biological Sciences of the Academy of Sciences of the Republic of Tatarstan, accredited expert of the Federal Service for Supervision of Education and Science (Rosobrnadzor).
3	Academic expert	Shushanik Gevorkovna Afrikyan	PhD in Pharmacy/Candidate of Pharmaceutical Sciences, Associate Professor of the Department of Pharmacy, Head of the Computer Based Examinations Organisation Department, Yerevan State Medical University after M. Geratsi, Republic of Armenia.
4	Academic expert	Saltanat Nurgozhayevna Urazova	Doctor of Medical Sciences, Head of the Department of Family Medicine No. 3 Astana Medical University NJSC
5	Academic expert	Darya Muratovna Shabdarbaeva	Doctor of Medical Sciences, Professor, pathologist of the highest category, medical examiner of the highest category, head of the department of pathological anatomy and forensic medicine named after Professor Y.V. Pruglo, Semey Medical University NJSC
6	Academic expert	Raygul Mukhanbetovna Ramzanova	Doctor of Medical Sciences, Professor of the Department of Internal Medicine Kazakh National Medical University named after S.D. Asfendiyarov NJSC
7	Academic expert	Akmaral Kanashevna Zhumalina	Doctor of Medical Sciences, Professor, Head of the department of paediatric diseases with neonatology

			West Kazakhstan State Medical University named after Marat Ospanov NJSC
8	Academic expert	Raihan Esenzhanovna Tuleutayeva	Candidate of Medical Sciences, Head of the Department of Pharmacology named after Dr.M.S., Professor M.N.Musin Semey Medical University NJSC
9	Academic expert	Zaure Alpanovna Baigozhina	PhD in Medical Sciences, Dean of the School of Nursing Astana Medical University NJSC, Member of the Association for Medical Education in Europe (AMEE).
10	Academic expert	Sholpan Khamzaevna Ramazanova	Candidate of Medical Sciences, Acting Associate Professor at the Department of Clinical Disciplines, Al-Farabi Kazakh National University.
11	Academic expert	Bibikhan Abdaliyevna Yeralieva	Candidate of Medical Sciences, Assistant of the Department of Clinical Pharmacology Kazakh National Medical University named after S.D. Asfendiyarov NJSC
12	Academic expert	Gulnara Akhmetkazyevna Isposunova	doctor - urologist of the highest qualification category, assistant of the Urology Department Kazakh National Medical University named after S.D.Asfendiyarov NJSC
13	Academic expert	Asel Baidauletovna Doshakanova	Candidate of Medical Sciences, Head of the Postgraduate Education Department of the Kazakh Order "Badge of Honour" Research Institute of Eye Diseases LLP
14	Academic expert	Asem Kalelovna Dosanova	PhD, Associate Professor, Department of Paediatric Surgery Astana Medical University NJSC
15	Employers' Representative	Bayan Lashinovna Daniyarova	Deputy Director for Strategic Development of the Regional Clinical Hospital, Karaganda Oblast Health Department
16	Expert - representative of doctoral students	Aknur Daurenkyzy Orazbay	Doctoral student of the first year of study in the Biology speciality E.A. Buketov Karaganda University NJSC
17	Residents' representative	Aydana Kurak	Resident of the first year of training in the Adult, Child Endocrinology speciality at the Astana Medical University NJSC
18	The ECAQA observer	Умарова Макпал Альдибековна	Head of Accreditation and Monitoring Department of Eurasian Centre for Accreditation and Quality Assurance of Education and Health Care Non-Profit Institution

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

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

The report of the EEC contains the assessment of the 7R01109 Clinical Pharmacology educational programme for compliance with the Standards for Accreditation of Postgraduate Education Programmes (residency specialty) of medical educational institutions and conclusions (hereinafter - the Standards for Accreditation), recommendations of the EEC on further improvement of approaches

and conditions for the implementation of the above-mentioned educational programme and recommendations for the ECAQA Accreditation Council.

## 2. General part of the final report

### 2.1 Presentation of the educational programme for the specialty - 7R01109 Clinical Pharmacology

Name of organisation, legal form of ownership, BIN	Karaganda Medical University Non-profit Joint Stock Company, BIN 190140033600
Corporate body	Ministry of Health of the Republic of Kazakhstan
Full name of the first manager	Anar Akyzbekovna Turmukhambetova
Creation date	1950
Location and contact details	Republic of Kazakhstan, Karaganda, Gogol str. 40, tel. 8-7212-50-06-31
State licence for educational activities in residency (date, number)	No. KZ32LAA00016018 dated 06.05.2019
Information on branches, subsidiaries (if any)	-
The year of implementation of the accredited educational programme (EP) started	2020
Duration of training	2 years
Total number of graduates since the beginning of the implementation of the EP	0
Number of residents at the EP from the beginning of the current academic year	1
Full-time teachers/joint teachers involved in the implementation of the programme, including % of academic degree holders rate	Total number of teachers - 4, including full-time employees - 4, part-time employees - 0.  Academic degree holders rate, % - 50 Categorisation, % - 75
Website Instagram Facebook with active pages	<a href="http://www.qmu.edu.kz">www.qmu.edu.kz</a> @officialkmu

KMU NJSC encompasses the development of society, improving the health and quality of life of the population of Kazakhstan by achieving excellence in science, education and practice.

In 2018, KMU NJSC was reorganised into a non-profit joint stock company by the Resolution of the Government of the Republic of Kazakhstan dated 16 October 2018 No. 646. In 2019, it received the status of a research university (Resolution of the Government of the Republic of Kazakhstan dated 27 June 2019 No. 453.).

For the next five years, KMU NJSC aims to form KMU NJSC as a research university that realises educational activity through science, practice and innovation.

Partners of KMU NJSC are medical universities and scientific centres of Kazakhstan, Russia, Belarus, Georgia, Tajikistan, Uzbekistan, as well as France (University of Poitiers), Italy (University of Milan), Japan (Shimane University), Great Britain (University of London St. George) and others. The University actively participates in the implementation of international projects of the Erasmus+ programme.

According to the Decree of the Ministry of Health of RK from 27.06.2019 № 453 KMU NJSC received the status of a research university.

In 2019, KMU NJSC successfully carried out institutional and specialised accreditation according to the standards of WFME (IAAR- Independent Agency for Accreditation and Rating). Institutional accreditation of additional education of the university (IAAR) was held for the first time. Institutional and specialised accreditation of VET level was conducted (IAAR).

In 2019, KMU NJSC bECAQame a Consultant for the development of medical education in the Republic of Tajikistan. The Dissertation Council on the speciality 6D110200 "Public Health" was opened.

In 2020 KMU NJSC won 3 grants of the European Union under the Erasmus+ programme for three projects: "Harmonisation and mutual recognition of master's programmes in occupational and environmental health", HARMONEE (2020 - 2023 years); "Accelerated development of nursing education at master's and doctoral level in the higher education system in Kazakhstan", AccelEd (2020 - 2023 years); "Promoting the development of the 21st century doctor: training in patient-centred communication skills", FOR21 (2020 - 2023 years).

In 2020, KMU NJSC was successfully conducted institutional monitoring "Impact and sustainability of the results of the Erasmus+ Programme's Higher education capacity-building projects" by the Erasmus+ National Office in Kazakhstan.

On the basis of KMU NJSC a visit of a delegation of doctors from China was organised as part of comprehensive support to Kazakhstan in the fight against the new coronavirus infection COVID-19. In the clinics and dormitories of the university during the pandemic, a quarantine centre, 2 provisory hospitals, and an infectious disease hospital were opened.

In 2020 KMU NJSC recertification of the quality management system of the university by the Certification Association "Russian Register" for compliance with ISO 9001:2015 standard was carried out. The Research Sanitary and Hygienic Laboratory was successfully assessed by the National Accreditation Centre for transition to the GOST ISO/IEC 17025-2019 standard.

The first admission to the residency was held at the Department of Clinical Pharmacology and Evidence-Based Medicine in 2012-2013 academic years. Under the guidance of the Head of the Department of Clinical Pharmacology and Evidence-Based Medicine, Candidate of Medical Sciences, Associate Professor Sh.S. Kalieva, the first resident A.A. Moldapanayeva was admitted, who completed her residency training with honours in the specialty "Clinical Pharmacology". Currently, A.A. Moldapanayeva works as a doctor-clinical pharmacologist in Shardara Central Regional Hospital of South Kazakhstan Oblast. In 2018, she was appointed as a chief freelance clinical pharmacologist of the Public Health Department of Turkestan region.

The next admission of one resident - B.A. Kozhakhmetov at the Department of Clinical Pharmacology and Evidence-based Medicine was carried out in 2016-2017 academic year. Currently, B.A. Kozhakhmetov is working in Kostanay regional children's hospital Public State Enterprise.

Resident J.B. Ayat was accepted in Clinical pharmacology speciality in 2021-2022 academic year under the contract with the payment of tuition fees at the expense of a legal entity: Multidisciplinary clinic named after Prof. K.H. Makazhanov Municipal state enterprise on the right of economic management.

KMU NJSC has a mentoring institute, according to the "Regulations on Residency", approved by the Decision of the Board of KMU NJSC from "23" August 2022, Minutes № 18, which allows the clinical mentor not only to participate in the practical training of students, forming the skills of independent work with patients, but also to be responsible for the further development of the resident, becoming a specialist in accordance with the requirements of the medical community and the labour market, as well as the outcomes of training.

**2.2.** The speciality was accredited in 2012; further re-accreditation was not carried out due to the small number of students.

**2.3 Conclusions on the results of reviewing the report on self-assessment of Clinical Pharmacology educational programme for compliance with the Standards for Accreditation of**

## **Postgraduate Education Programmes (Residency Specialty) of Medical Education Organisations and decisions**

The report on the self-evaluation of the residency educational programme in the specialty of Clinical Pharmacology is presented in 101 pages of main text, appendices in 100 pages, copies or electronic versions of 23 documents available at the following website link <https://drive.google.com/drive/folders/1pdCvvFizipqSvbyN9b9UVEg5NIvvJdId?usp=sharing>.

The report is characterised by completeness of answers to all 9 main standards and accreditation criteria, structured taking into account the recommendations of the Guidelines for the self-assessment of educational programme provided to the educational institution by the accreditation centre - ECAQA, as well as internal unity of information. The report is accompanied by a cover letter signed by the Rector Anar Akylbekovna Turmukhambetova, which confirms the reliability of quantitative information and data included in the self-assessment report.

The report has a list of 9 members of the internal self-assessment commission with the indication of responsibility of each employee, information about the representative of the organisation responsible for self-assessment of the educational programme - Madina Aynullaevna Ernazarova, Chief Specialist of the Strategic Development and Quality Management Department.

Self-assessment of Clinical Pharmacology educational programme was carried out according to the order of the University Rector No. 274 dated 16.09.2022 "On approval of the composition of the working group for self-assessment of educational programmes".

The accreditation expert B. Eralieva reviewed the report.

The review notes the strengths reflected in the report and areas for further improvement, as well as recommendations for additions and changes, which in the process of feedback with the representative of the university were taken into account and made in the self-assessment report.

In all standards the real practice of the University on training of residents in Clinical Pharmacology specialty, taking into account the beginning of admission of students in 2012, reasoned data, examples of implementation of educational programme objectives, national and international events, methodological support, confirming compliance with the requirements of accreditation standards are given. Description in the report is complete and updated on the number of residents, teachers, administration, information on selection and admission, training results, 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, etc.

The report is submitted to ECAQA in a completed form, with data correction according to the above recommendations, it is written in a competent manner, the wording for each standard is clear and understandable, described in accordance with the criteria of the standards, tables and figures (schemes, photos) are referenced in the text and have consecutive numbering.

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

### **3. Description of the external expert evaluation**

Within the framework of the visit of the External Expert Commission of "Eurasian Centre for Accreditation and Quality Assurance in Education and Health Care" (ECAQA) Non-Profit Institution Medical University of Karaganda NJSC the external expert work on the evaluation of educational programme within the framework of accreditation of educational programmes was organised in accordance with the Guidelines for the external evaluation of educational organisations and educational programmes of ECAQA and according to the programme approved on 20.05.2022 by the Director General of ECAQA S. Sarsenbaeva and agreed by the Director General of ECAQA S. S. Sarsenbaeva. 24-26 May 2023



The external evaluation is aimed at validation of the self-assessment report data and verification of indicators showing the degree of compliance with the criteria of accreditation standards.

The sequence of the visit during 3 days is presented in detail in the Visit Programme (hereinafter referred to as the programme), which is in the documentation of the accreditation centre. The programme is the proof of implementation of all planned activities within the framework of the external expert assessment.

On the first day of the visit - May 24, 2023, a meeting was held with members of the Board of KMU NJSC with K.K. Toleubekov, E.M. Turgunov. They discussed issues of internal quality assurance policy in higher and postgraduate education, planning, monitoring of implementation, provision of resources, evaluation of educational programmes, work with departments; issues of clinical resources for training residents, scientific directions of the university, motivation systems and participation in research and development of teachers of residency departments. EEC members met with the staff of departments responsible for the admission and employment of graduates with the head of the Career Development Department G.M. Tokzhumanova, Dean of the Residency School V.B. Tashkenbaeva, Dean of Nursing Education K.A. Estemesova, Director of the Institute of Life Sciences D.A. Kluyev. The issues of formation of the state order for specialities, selection and admission procedures, paid training, career guidance work, feedback with entrants and applicants, work with departments, monitoring of employment of graduates, satisfaction with the quality of training of graduates were discussed.

Interviews with management and key staff of KMU NJSC allowed to determine the fulfilment of most criteria of accreditation standards 1,2,5,7,8,9, namely, to identify approaches in the development of the mission of the educational programme and its compliance with the strategic goals of the university, the role and place of postgraduate education in clinical direction in the university strategy (plan), mechanisms in determining the appropriate specialty residency clinical bases and qualified teachers, guarantees of sufficiency of educational resources through public procurement planning and agreements with country and international partners.

We visited the university library. The total area of the library is 1526 square metres, the book storage area is 941.6 square metres. There are 443 seats in the reading rooms. The library includes: the department of acquisition and bibliography, the department of service of scientific and educational literature (consists of the scientific literature subscription, two subscriptions of educational literature, reading room and periodicals hall, hall of electronic resources, interactive hall). The computer park of the library consists of 113 computers, of which 88 thin clients (TC), 21 personal computers (PC) are located in the subdivisions of the library, 4 PCs and 63 TCs - in the hall of electronic resources and 25 TCs - in the interactive hall, the whole park of computers is connected to the INTERNET network. Wi-Fi zone is spread all over the territory of the library. There are 2 scanners for users in the Electronic Resources Hall. The Interactive Hall is equipped with a short-focus projector. For students, there is the Scholar's Hall equipped with 15 computers connected to the Internet, which allows access to all information resources of the university. Service of users in electronic halls is carried out from Monday to Friday from 09-00 to 20-00, on Saturday from 09.00 to 18-00. To implement the educational process in the speciality "Endocrinology adult, pediatric" book supply of basic and additional literature is 100%. From them the total number of textbooks, including in the Kazakh language, is 1314 copies, scientific literature - 785 copies, periodicals - 4, electronic publications - 7.

Also they visited the gym of the university and the Student Service Centre. At the Student Service Centre of Karaganda Medical University a student can get all the necessary documents signed with an electronic digital signature through a personal account on the portal [cos.qmu.edu.kz](http://cos.qmu.edu.kz), having pre-ordered the necessary service. The result of the service is sent to the student's e-mail account.

The Simulation and Educational Technology Centre was visited in the afternoon. The area of the Centre of Simulation and Educational Technologies is 1300 sq.m., 42 training rooms. The Centre is equipped with more than 400 types of simulation equipment, including 57 high-tech simulators.

Also, on the first day of the visit, meetings were held with the members of the Academic Committee of the Senate, the Commission for Quality Assurance of the School by levels of education (Master's, PhD, residency); with the staff of the Department of Human Resources Management and the

Centre of Simulation and Educational Technologies; with the staff of the Department of Economics and Finance.

On the second day of the visit, the experts visited the clinical base of the Department of Clinical Pharmacology "Multidisciplinary Hospital named after Professor H.J. Makazhanov" of the Health Department of Karaganda region, where the experts examined the resources of Clinical Pharmacology accredited educational programme, their compliance with the residency training courses, accessibility for teachers and residents, how modern this equipment is and how it meets the needs of students and practical health care.

On the same day, interviews with lecturers, residents and employers (representatives of practical healthcare) took place. It was not possible to conduct interviews with graduates due to the fact that 2 residents who graduated in 2013 and 2019, respectively, are currently employed in other regions of Kazakhstan, however, the experience and authority of KMU NJSC in training residents (since 2012) shows a hundred percent employment of graduates of other residency programmes and their demand in medical organisations in all regions of Kazakhstan.

On the same day the experts studied the materials on admission of residents and selection of teachers. For admission to the residency programme in Clinical Pharmacology specialty exam tickets consisting of 3 questions are developed, an oral exam is held, the results are posted on the stands of the University.

In order to validate the implementation of the self-assessment report data and to obtain evidence on the quality of the programmes, an interview was conducted with resident Ayat J. The assessors asked questions about satisfaction with the education at the university, sufficient time for practical training, patient supervision and work with medical records, as well as satisfaction with teaching methods and qualification of teachers. Resident Ayat J. showed her commitment to education, confidently answered the questions about satisfaction with training, assessment methods, and that she purposefully entered Clinical Pharmacology speciality, thereby demonstrating a positive attitude towards the organisation of training, assessment of skills, provision of consultative support, opportunities to participate in research and development, funding, etc., also noted that receiving quality education and extensive practical experience at the Department of Clinical Pharmacology, she was very satisfied with the teaching methods and the teaching methods, and that she was able to participate in the research and development process.

The experts studied the portfolio of resident J. Ayat, the results of resident evaluation-checklists, and the results of questionnaires. Interviews with 44 employers for all educational programmes of KMU NJSC residency applied for accreditation included such questions as: knowledge of the mission of the university, participation in the development of the mission and proposals to the strategic plan, participation in the work of advisory bodies of KMU NJSC, satisfaction with the basic knowledge and skills of residents, participation in the training of residents through mentoring, providing the department and residents with the necessary resources for practical training and formation of clinical thinking, about the problems of interaction with cafes and cafes, about the problems of interaction with the department and residents. Employers expressed about the shortage of personnel in clinical pharmacology, each clinical base has clinical pharmacologist rates, which are in high demand in the labour market. Review of resources showed that the clinical base "Multidisciplinary Hospital named after Professor H.J. Makazhanov" of the Health Department of Karaganda region, meets the goals and objectives of the accredited educational programme on clinical pharmacology in terms of the profile of beds, modern equipment and its availability to all students, and the staff of the department provides collegial and ethical relations with the medical staff, the management of the clinical base in order to achieve the outcomes of the educational programme. Before the start of training in the relevant discipline of Clinical Pharmacology EP, the resident receives a syllabus from the lecturer, which contains the skills that the resident should master and develop during the training. Given that the speciality of clinical pharmacology is multi-disciplinary, residents have the opportunity to rotate through different clinical bases to cover patients of all profiles ("Multidisciplinary Hospital named after

Professor H.J. Makazhanov" of the Health Department of Karaganda region, Regional Clinical Hospital of the Health Department of Karaganda region).

In the second half, interviews with students, teachers, graduates and employers were conducted.

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

- interview with management and administrative staff - 7 people;
- interviews with residents - 84 people;
- exploring the website <https://www.qmu.edu.kz/ru>;
- interviewing 4 staff members, 2 faculty members, 1 preceptor;
- faculty and resident questionnaires - 32 and 1, respectively;
- review of resources in the context of meeting accreditation standards: 1 base of the Department of Clinical Pharmacology "Multidisciplinary Hospital named after Professor H.J. Makazhanov" of the Health Department of Karaganda region was visited, where training on the educational programme "Clinical Pharmacology" is conducted with the participation of 4 full-time teachers;
- study of educational and methodological documents in the amount of      units both before the visit to the organisation and during the visit to the departments (list of studied documents in **Appendix 2**).

On the part of the accredited organisation's staff the presence of all persons specified in the visit programme and according to the lists of interview and interview sites was ensured (table 1).

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

<b>No.</b>	<b>Position</b>	<b>Quantity</b>
1	Members of the Management Board of KMU NJSC	2
2	Employees of departments responsible for the admission and employment of graduates	4
3	Heads of educational programmes	4
4	Members of the Academic Senate Committee, Quality Assurance Commission of the Residency School	9
5	Employees of the Department of Human Resources Management and the Centre for Simulation and Educational Technologies	3
6	Staff of the Department of Economics and Finance	1
7	Residents	84
8	Faculty members	35
9	Graduates (residency)	39
10	Employers (residency)	23

**Day three.**

The experts studied the documentation of the Department of Clinical Pharmacology, which confirmed compliance with accreditation standards (nomenclature of the department, the plan for 5 years, the annual plan for the academic year 2022-2023 and the report for 2022, the log of residents' progress, teaching materials, feedback questionnaires with residents, teachers, reports on the results of questionnaires and measures taken, the code of ethics, etc.), including documentation on the request of EEC members (plan for scientific - research work of residents of the 1st and 2nd year of training, the annual plan of research and development of teaching staff with residents for 2021 - 2023 and the report for 2022, the journal of residents' progress, teaching materials, feedback questionnaires with residents, teachers, reports on the results of questionnaires and measures taken, the code of ethics, etc.), control and measurement tools), including the documentation requested by the EEC members (plan of scientific-research work of residents of the 1st and 2nd year of training, prospective plan of research and development of teaching staff with residents for 2021 - 2023), evaluation sheet of clinical case assessment, assessment date: 18.05.2023; evaluation sheet of clinical case assessment, assessment date: 25.04.2023; block of practical skills (Mastering practical skills, manipulations, procedures); diary of

the 2nd year resident J. Ayat, resident's portfolio, examples of clinical and pharmacological expertise of medical charts).

On the last day of the visit to the organisation there was a meeting of the EEC members on the results of the external evaluation. Final discussion of the results of the external evaluation of the educational programme, study of documents, results of interviews, interviews, questionnaires was held. The EEC members started designing the final report of the EEC. The results of the external evaluation were summarised. The experts individually filled in the "Profile of quality and criteria of external evaluation of Clinical Pharmacology educational programme for compliance with the ECAQA Accreditation Standards". According to the results of the audit there are no comments. Recommendations for the improvement of the educational programme were discussed and the chairperson H.I. Kudabaeva held the final open voting for the recommendation of the educational programme at the ECAQA Accreditation Council for the period of accreditation - 5 years.

When conducting a questionnaire survey of residents, 100% evaluated the work of the External Expert Commission on Accreditation as positive.

According to 96% of teachers, the questionnaire survey, which was conducted by EEC, is useful for the development of recommendations to improve the key areas of activities of the accredited educational organisation.

At the end of the visit programme the EEC Chairman announced recommendations for the management and staff of the educational organisation on the results of the external evaluation within the framework of the specialised accreditation.

For the implementation of the educational process, creative potential of the teaching staff and adequate training of medical specialists in KMU NJSC favourable conditions have been created according to the requirements of modern society.

### **3. Analysis of compliance with accreditation standards on the results of external evaluation of the educational programme of the residency in Clinical Pharmacology specialty.**

The mission of Clinical Pharmacology EP is aimed at training highly qualified specialists with in-depth knowledge of clinical pharmacology, capable of applying and developing advanced innovative technologies in medicine, science and practice, based on the principles of evidence-based medicine and meeting the needs of society in the high quality of medical services and treatment results.

At the meeting of the Board of the School of Residency and Professional Development of KMU NJSC from 12.03.2023 the Clinical Pharmacology EP and its Mission were discussed and developed in accordance with the institutional (all-university) Mission, which was approved on 22.10.2019, pr.1 by the decision of the Senate of KMU NJSC.

Clinical Pharmacology EP of 20.06.2020 was included in the register of the UHEMS (Unified higher education management system) of the Ministry of Education and Science of the Republic of Kazakhstan and on the portal of KMU NJSC in free access.

The mission and objectives of Clinical Pharmacology EP as a highly professional specialist in demand in the health care system of the Republic of Kazakhstan are aimed at the professional orientation of the graduate of the residency, also the definition of the mission of the EP is based on the "Code of Health of the people and the health care system of the Republic of Kazakhstan", "State Programme of Health Care Development of the Republic of Kazakhstan for 2020-2025" important aspects of which are the preservation of public health and disease prevention, as well as the rational use of medicines in clinical practice and prognosis.

In order to obtain objective information on the expert evaluation of the accredited educational programme, the following methods were used by the members of the EEC: interviews with the management and administrative staff, interviews with residents, observation, website study, interviews with employees of various structural units, teachers, questionnaires of teachers and residents, review of resources in the context of the implementation of accreditation standards, study of 27 educational and methodological documents both before and during the visit to the university. The KMU NJSC staff

ensured the presence of all persons specified in the visit programme and according to the lists of interview participants.

The sequence of the 3-day visit is detailed in the Visit Programme, which can be found in the documentation of the accreditation centre and in the appendix to this report.

The first day of the visit 24.05.2023. Interviews with the management and key staff of KMU NJSC allowed to determine the fulfilment of most criteria of accreditation standards 1,2,5,7,8,9, namely, to identify approaches in the development of the mission of the educational programme and its compliance with the strategic goals of the university, the role and place of postgraduate education in clinical direction in the university strategy (plan), mechanisms in determining the appropriate specialty residency clinical bases and qualified teachers, guarantees of sufficiency of educational resources. The experts have studied in detail the documentation, including the educational programme for Clinical Pharmacology specialty, syllabuses for the disciplines of the EP CP of the 1st year (8) and 2nd year (10) of training in the state and Russian languages, the distribution of teaching hours of faculty members of the department teaching in the residency; HETP (Higher-Education Teaching Personnel), test instruments (test tasks in the state and Russian languages), logs of academic progress and attendance (paper and - Platonus AIS), exam sheets for Clinical Pharmacology speciality.

The HETP of the Department of Clinical Pharmacology presented also the plan for research work of the resident of the 2nd year of training, evaluation sheet of clinical case examination, date of evaluation: 18.05.23g.; evaluation sheet of clinical case examination, date of evaluation: 25.04.23.; diary and portfolio of the resident of the 2nd year of training J. Ayat.

The HETP of the department develop educational and methodical documentation for training of 1 resident, as well as textbooks for practical health care: textbooks Sh.S. Kaliyeva "Clinical pharmacology and rational pharmacotherapy in gastroenterology" (p. 397) and "Clinical pharmacology and rational pharmacotherapy in rheumatology" (p. 389) - Almaty, 2020. "Evero."

The experts found that KMU NJSC strictly complies with the requirements of regulatory legal acts and the State Educational Standards in the implementation of educational programmes. The management systematically monitors the educational process during internal audits (QMS, mutual control, control of the Vice-Rector for Academic Affairs, reporting, etc.). The basis for effective management is the Quality Assurance Policy of KMU NJSC and the "Departmental Policies" developed by the residency departments, as well as following the Quality Manual in documenting the educational process (QMS since 2012 is constantly maintained and certified). During the conversation with the Dean of the School of Residency and Professional Development V.B. Tashkenbaeva, the experts learnt about the approaches to attracting clinical base staff to teach residents, the strategy and tactics of recruitment of residents for different specialities, information provision of postgraduate education, as well as to identify the problems of management and development of human resources, as most practitioners do not know the methodology of teaching

As a result of the examination, it was established that the mission of Clinical Pharmacology EP corresponds to the requirements of the current normative-legal acts, the educational process is built in accordance with the SCES (State Comprehensive Education Standard) in postgraduate education and health care.

## **1.2 Professionalism and professional autonomy**

Residency educational programme on specialty 7R09142 - Clinical pharmacology is implemented in accordance with the State mandatory standards and model professional training programmes for medical and pharmaceutical specialties of 31 July 2015 (as amended by the order of the Ministry of Health of the Republic of Kazakhstan No. ҚР ДСМ-12/2020 of 21.02.2020 Chapter 2. Requirements for the content of educational programmes of residency with a focus on learning outcomes) a lot of work has been done to develop educational and methodological materials, the organisation of the training place for residents, the form of the training programme, and the training of residents. A model of resident competences has been implemented in accordance with the qualification requirements for the speciality. The structure, content and duration of the programme are clearly defined. The mechanism of development, approval of the residency programme is defined and

regulated by the EPC (Educational Programmes Committee). The staff of the department has the necessary competences for training, 4 lecturers participate in the training of residents, 2 of them have a degree, 1 employee has the highest medical category in Clinical Pharmacology speciality. Teachers of the departments apply various methods of active (clinical cases, participation in rounds, consultations of doctors, patients, case studies, expert evaluation of prescriptions, analytical reviews of drugs) and traditional (oral discussions, mini-lectures) training, on which staff members are periodically trained within the university, less often in other organisations.

The profiling competences of the EP in Clinical Pharmacology are PC2, PC3, PC4, which ensure continuous imparting of skills on adherence in clinical practice, principles of medical ethics, communication skills leading to effective information exchange and cooperation with patients, their families and medical professionals, including with the use of information technologies, as well as provides patient-centred care, including appropriate and effective interventions aimed at treatment.

Resident - clinical pharmacologist during training on clinical bases acquires skills to regulate professional relationships and activities in the speciality when providing therapeutic and consultative assistance to patients and physicians in complex clinical cases, during participation in consiliums, when participating in pharmacovigilance, assessing the rational use of drugs, conducting clinical and pharmacological expertise. Also, the resident - clinical pharmacologist is oriented to the main provisions of clinical protocols of the RK, international recommendations for individual diseases; is constantly in an environment where the freedom of professional decisions of a clinical pharmacologist in the field of drug circulation is ensured; in clinical practice.

In the educational process, there is a systematic control of educational achievements, which includes: current control, interim certification and final control. In KMU NJSC, all conditions have been created for maximum approximation of the system of evaluation and control of residents' competences to the conditions of their future professional activity. The format of evaluation of residents is constantly updated at the meetings of the Department and the School of Residency and Professional Development.

According to the "Regulations on the rating system of assessment of students' learning achievements the resident's learning achievements are assessed. The head of the EP, faculty of the department annually updates up to 30% of test assignments for residents.

The teacher responsible for a particular discipline carries out ensuring the principle of independence and transparency in the Platonus programme, the assessment of the resident's current academic performance.

In accordance with the working curriculum and academic calendar interim certification in the form of written assignments is carried out. In the previous academic year, the 1st year resident had interim certification in the form of a two-stage examination (written examination on the Session platform and assessment of practical skills) during the summer session, in the current 2022-2023 the 2nd year resident has a test control on the Platonus platform with assessment of practical skills after the completion of the discipline. Final (interim) certification of students in residency is carried out once a year according to the results of mastered disciplines taking into account the transfer point (GPA).

Successful completion of interim and final attestation and further passing of the independent examination procedure are the main methods of assessing the resident's achievements.

Resident of the 2nd year of training J. Ayat since 01.09.2022 has been employed on 0.5 rate in Multidisciplinary hospital named after Prof. H.J. Makazhanov Municipal state enterprise on the right of economic management.

Resident J. Ayat is actively involved in the scientific work of the department, speaks at scientific conferences with reports.

Thus, the EP of residency in speciality 7R09142 - "Clinical pharmacology" demonstrates integration between training, provision of medical care and conducting scientific research.

Feedback from practical health care physicians is provided in the form of a characteristic or summary of the resident's work in the department during the period of training at the clinical base.

On 12-13 April 2023 resident J. Ayat delivered an oral report "Safety of drug therapy in geriatric practice" at the conference "Science and youth: discoveries and prospects" at Medical University of

Astana NJSC and on 20-21 April 2023 with a poster presentation "Journal Club as a tool to access modern Maastricht-6 recommendations" at the VI-th Central Asian International Scientific and Practical Conference on Medical Education "Education of the Future: Winds of Change".

With the development and introduction of distance technologies, the opportunities for residents to participate in international webinars, Congresses in online format have expanded. The head of the EP sends links to these events in the chat room with residents and by joint presence of the head of the EP or faculty monitors their participation in the webinars. Afterwards, the key points voiced in the webinar are discussed in the practical sessions.

Resident J. Ayat has prepared presentations on the appropriate use of drug delivery devices for diabetes mellitus and bronchial asthma to support population health, particularly for patient education. As part of the training, the resident is involved in expert work by conducting and then analysing the results of clinical and pharmacological examination of the use of medicines.

For verification of Standard 1 a meeting with the head of the organization, acting head of the department E.A. Yukhnevich was held.

During the conversation the experts asked the following questions: 1) Why is there only 1 resident studying at the department? During the answers, the acting head of the department E.A. Yukhnevich confirmed that at present there is 1 resident studying on a contractual basis. But after passing the accreditation they plan to admit 8 residents to the residency programme in Clinical Pharmacology specialty.

When conducting a questionnaire survey of 1 resident (on the resource <https://webanketa.com/>), out of 22 questions, a number of them were devoted to the quality of the educational process and educational programme. It was found that in 100% of cases the resident would recommend studying in this educational organisation to his acquaintances, friends and relatives. To the question "Do you think that this educational organisation allows you to acquire the necessary knowledge and skills in your chosen specialty?" 100% of the answer is positive.

Interviewed 4 teachers (21 questions of the questionnaire) also answered that 100% are satisfied with the organisation of work and workplace in this educational organisation. The experts determined that there is a healthy microclimate in the organisation, as the manager is quite accessible to both residents and staff. In the opinion of all respondents (100%) in the educational organisation the teacher has the opportunity to be fulfilled as a professional in his/her specialty. For information, a total of 4 people responded (total of 4 in the staff), and all teachers have teaching experience of more than 10 years.

### **1.3 Learning outcomes**

The availability of information for employers on the HEI website is noted. External audits at the departments, meetings and reports, round tables with stakeholders contribute to the active participation of external stakeholders in the implementation of the quality assurance policy of the educational programme.

The staff of the department take an active part in the formation of the Mission and final learning outcomes of the EP on residency specialities, Sh.S. Kalieva, E.A. Yukhnevich are the developers of the EP, and the rest of T.K. Sagatova and Zh.V. Myasnikova participated in the discussion and approval of the EP. Also potential employers, administrative and management staff and the graduate of 2018 B.A. Kozhakhmetov, who is currently working as a doctor of clinical pharmacologist in Regional Clinical Hospital Public State Enterprise (PSE) of the Health Department of Karaganda region took an active part in the discussion of the Mission of the University. The Senate of the KMU NJSC, the Council of the School of Residency and Professional Development includes representatives from residents, potential employers, who are invited to the meetings.

When developing 7R01109 - Clinical Pharmacology EP representatives of practical health care were involved: doctor-clinical pharmacologist of Multidisciplinary Hospital named after Prof. H.J. Makazhanov Municipal state enterprise on the right of economic management of the Health Department of Karaganda region Kim I.A., representative of another university - head of the

Department of Clinical Pharmacology MUA NJSC, doctor-clinical pharmacologist of the highest category N.S. Ahmadyar. In the development of Clinical Pharmacology EP members of the Professional Association of Clinical Pharmacologists and Pharmacists Republican Non-Governmental Organisation were involved in the discussion.

At the beginning of the academic year, the head of the EP discusses the main provisions of these Codes and the steady observance of them by the resident. Department staff and students comply with the Code of Honour of Medical and Pharmaceutical Worker, regulated by the Code "On the health of the people and the health care system of the Republic of Kazakhstan", the Code of Honesty of the teacher, posted on the website of the Ministry of Education and Science of the Republic of Kazakhstan and the Code of Academic Honesty.

Residents in the process of studying core disciplines at the workplace in the clinic under the guidance of a teacher and/or clinical mentor develop an appropriate attitude towards the patient and their relatives.

In order to form the competences "Communication" and "Professionalism", the principle of "patient-centred care" is taught to the residents during the training. At the end of the discipline, a 360° Resident's Assessment Sheet is evaluated, where the resident's performance is assessed to monitor the achievement of these competences.

The Code of Academic Honesty is one of the main documents that allow to orient each member of the team to achieve common goals, concentrate their initiative, enterprise, order their business communication and ensure a favourable moral and psychological climate and defines the basic concepts and principles of academic honesty, establishes the obligations of all participants of the educational process to comply with academic honesty, determines the types of violations of academic honesty and the procedure for taking action in case of their occurrence.

The goal of achieving better patient outcomes is the resident's ability to demonstrate effective interaction with the patient, the patient's environment, and health care professionals as part of interdisciplinary and interprofessional teams.

The KMU NJSC Code of Academic Honesty reflects 10 points of professional behaviour that residents should develop:

1. Academic Honesty, 2. Quality of education, 3. Respect for standards, rights of the author and his/her assignees, 4. Responsibility, 5. Independence, 6. Mentorship/coaching, 7. Openness 8. Equality 9. Fraternity 10. Demandingness.

The faculty surveyed responded that they were 100% completely satisfied with the level of prior training of residents.

The experts have established a clear continuity between the outcomes of the residents' previous training (prerequisites) and residency training, and subsequent continuing professional development programmes.

100% of the respondent teachers believe that the students of this educational organisation have a high level of knowledge and practical skills after completion of the education programme.

The final learning outcomes of Clinical Pharmacology EP in accordance with the competences of the residents of KMU NJSC, the requirements of practical healthcare, which are represented by 12 points in Appendix 1 and are aimed at the formation of the future specialist both general professional and special competences, are determined.

The learning outcomes are directly related to public health, the interrelationship of the environment and population well-being and are defined based on the Dublin Descriptors and are aimed at mastery of clinical skills in the speciality, communication with patients and colleagues, professionalism, regulatory literacy, research skills, personal and professional growth for lifelong learning and development.

Successful completion of intermediate and final certification and further passing the procedure in the national centre of independent examination are the main methods to assess the achievement of the outcomes of training in Clinical Pharmacology by residents.

The annual questionnaire survey of employers conducted in KMU NJSC with the assessment of satisfaction of the latter with the employed graduates of the residency is mandatory.



#### **1.4 Participation in the formulation of mission and outcomes**

The KMU NJSC implements the Mission and goals of the EP taking into account the opinions and proposals of other stakeholders: patients, employers, association of doctors, representatives of trade union organisations of health care and the population.

Active co-operation with external stakeholders of KMU NJSC is noted. Master classes, training seminars, scientific-practical conferences, round tables are held, which allow the university to identify the existing advantages and problems of all types of university activities and thus to develop timely action plans to eliminate shortcomings and to make improvements.

EP on Clinical Pharmacology speciality is included in the register of the UHEMS of the MES RK and contributes to the achievement of the stated mission of the EP.

The development of objectives and outcomes of resident training in Clinical Pharmacology specialty is based on the state programmes for the development of health care and education of the RK, on the analysis of external and internal changes, analysis of information received on feedback from stakeholders.

It should be noted that strengthening the integration of education, science and practice, as well as improving the mission, structure, academic policy of KMU NJSC, provides residents with the opportunity to realise the quality of learning outcomes and professional competencies.

To master clinical skills, the resident has free access to large multidisciplinary medical organisations, training in Clinical Pharmacology is provided by qualified teaching staff with scientific degrees and titles.

In order to expand academic mobility and internships of resident clinical pharmacologists the search of possible ways in the presence of external challenges, political issues and pre-planning of the terms of academic mobility and internships for coordination between educational organisations is carried out.

Important attention in KMU NJSC is paid to the readiness of graduates in residency for further postgraduate education. In free access on the website of the University, the "Spheres of competence" of the KMU NJSC graduate of different specialities are developed.

Pre-requisites have been developed for internship graduates applying for residency, which take into account the basic and additional level of competences that allow maintaining the continuity of the programme.

The 6B10102-General Medicine EP at the undergraduate level has the learning outcome "Counselling patients (collect anamnesis, perform examination, assess clinical discernment, perform differential diagnosis, make a treatment plan)", which is the basis for acquiring and further deepening the learning outcomes of Clinical Pharmacology residency speciality, which is the basis for the learning outcome "Identify patient problems with assessment of efficacy and safety of drug therapy" in the Clinical Pharmacology EP.

*EEC conclusions on the criteria.* Compliant out of 17 standards (including 10 basic, 7 improvement standards): fully compliant - 17, partially compliant - , not compliant - 0.

*Standard 1: fulfilled*

*Recommendations for improvement identified during the external visit:*

1. It is recommended to ensure that staff and students are informed about the possibility of using the available infrastructure to maintain health (sanatorium)

#### **Standard 2: EDUCATION PROGRAMME**

##### **Evidence of conformity:**

##### **2.1 Framework for a postgraduate medical education programme**

In KМУ NJSC training in residency is carried out on clinical specialities approved by the order of the Ministry of Health of RK No. ҚР ДСМ - 43 of 25.05.2021 "On approval of the list of medical specialties of residency programmes".

The content of the EP on 7R01109 Clinical Pharmacology specialty corresponds to the State Educational Standards of the Republic of Kazakhstan 2015 (Order of the acting of the MHSD No. 647 dated 31 July 2015 with amendments and additions of 21.02.2020).

The accredited EP provides residents with the opportunity to plan and implement an individual training plan taking into account the specifics of the chosen speciality, defining disciplines of the elective component and is aimed at mastering the key competences of the resident in this speciality. Residents are informed about the required competences, which are reflected in the teaching and methodological complex of disciplines and are available for review on the HEI website. Since 2020, the educational programme is represented in the register of UHEMS of the MES RK.

The aim of EP and learning outcomes are clearly defined, which reflect the qualification levels and key competences of the graduate and are achieved during the study of relevant disciplines.

Residency training is conducted at the clinical bases of Karaganda city, including specialised departments of Multidisciplinary Hospital named after Prof. H.J. Makazhanov Municipal state enterprise on the right of economic management of the Health Department of Karaganda region, Regional Children's Clinical Hospital Municipal state enterprise on the right of economic management of the Health Department of Karaganda region, Clinic of the Medical University.

All teachers are certified clinical pharmacologists and perform clinical activities in these medical organisations.

Training on Clinical Pharmacology EP is carried out by credit technology. When forming the final assessment, the resident's portfolio is taken into account and the final control is carried out in 2 stages (assessment of practical skills (1st, 2nd year), written examination (1st year) or testing (2nd year). At the end of the residency, residents undergo final certification in the form of an independent assessment, including the passing of practical skills (OSCE) and testing.

Accredited EP on Clinical Pharmacology speciality corresponds to international requirements and 7R level of the national qualification framework in medical education and the Framework of Qualifications in the European Higher Education Area.

According to the Model curriculum, the labour intensity of each academic discipline of the compulsory component, each type of educational activity, exam is determined. The elective component is 4 credits. Working curricula in 2021-2022 academic year were developed in accordance with the State Educational Standards of RK 2015, Model curriculum and EP, including disciplines of compulsory component and elective component. The list of disciplines of the elective component is determined by the university independently.

According to Clinical Pharmacology EP, a resident receives the qualification "doctor-clinical pharmacologist" after completion of training.

Training is conducted according to the credit technology with allocation for classroom practical training, Independent work of residents with teachers and Independent work of residents. During the training period, according to the Working Curriculum, residents have only 10% of the total number of hours allocated to classroom work, while Independent work of residents with teachers and Independent work of residents account for 75% and 15%, respectively.

2022 the methodology of using an automated system for ABC/VEN analysis in the discipline "Evaluation of the use of medicines and clinical and pharmacological expertise. Undesirable drug reactions".

In accordance with the ESG-2015 standards on the basis of the Academic Integrity League the EP in Clinical Pharmacology speciality 7R01109 is implemented. The parameters on which current, intermediate and final evaluation of residents is conducted and the section of evaluation criteria are clearly described in the syllabuses.

Evaluation sheets for controlling the resident's extracurricular work (Evaluation sheet "Drug formulary", Evaluation sheet "Clinical and pharmacological expertise", Evaluation sheet "360°-

assessment of the resident", Evaluation sheet "Portfolio", Evaluation sheet "Night/day duty" in the therapeutic hospital) have been developed.

The educational programme formulates 6 main profile competences: clinical skills, communication, professionalism, regulatory knowledge, research, personal and professional development, according to which residents acquire the necessary skills and competences.

In order to create an atmosphere of benevolence and tolerance in the university, the KMU NJSC has developed and approved the Code of Academic Honesty, which defines the ethical principles that are mandatory for students and staff of the university.

For the implementation of the EP on Clinical pharmacology specialty in the documents of the organisation there are Teaching and methodical complex of the discipline, where the purpose is defined, the integration of practical and theoretical components, independent work is taken into account. Compliance with the State Standards of Education and Standard Requirements is established. The organisation ensures compliance with ethical aspects in the implementation of the educational programme, as the experts have studied the code of ethics (minutes No. 4 of the meeting of the Board of Directors dated 24.08.2019) and during the interview the residents answered that they are informed about the content of this document.

The analysis of educational activity has shown that the scientific basis and all achievements of science in the advising disciplines are taken into account, additions are made to the bibliography of Teaching and methodical complex of the discipline and syllabuses, and teachers apply them in classes.

The system of mentoring was evaluated, which is described in the document "Regulations on Residency" (approved by the Decision of the Board of the KMU NJSC 23.08.2022, Minutes No. 18). There are 2 mentors, whose tasks are to organise and conduct work with students in mastering professional skills, mastering the norms of medical ethics, improving the general educational and cultural level, as well as the formation of residents' high responsibility for the work performed, the desire for continuous self-improvement.

The procedure of informing residents about their rights and obligations is reflected in the syllabuses for independent study by residents.

## **2.2 Scientific method**

In Clinical Pharmacology EP Clinical Pharmacology provides mandatory mastering of skills of research activities. The introduction of scientific foundations and methodology of medical research in the EP is carried out based on the Law of RK "On Science",

Leadership in research is one of the main directions of the Development Programme of KMU NJSC for 2019 - 2023.

On the discipline "Stages of clinical trials and regulation of drug supply in medical institutions" the formation of residents, consolidation and expansion of knowledge in the field of methodology of scientific research, clinical and epidemiological research, statistical processing of material and evidence-based medicine is carried out.

When talking with residents, the experts learnt that they use scientific evidence in teaching and know the basics of evidence-based medicine. The lecturers said that they teach residents how critically to evaluate literature, articles and scientific data, and how to apply scientific developments. This form of training is organised in the form of a "journal club", which is held **once\_a\_month**.

During the questionnaire survey of resident J. Ayat it was found that the educational organisation has access to the participation of students in research and development.

Resident J. Ayat conducted a cross-sectional study during the period of study to evaluate the impact of Post-COVID-19 syndrome on students. The results of this study were published in the journal Russian Science Citation Index: MEDICUS. 2022. No. 6 (48). C 44-50.

The resident's participation in pharmacovigilance and conducting clinical-pharmacological expertise shapes and develops the resident's analytical and critical thinking abilities.

## **2.3 Structure, content and duration of the residency programme**

There are documents containing requirements for the structure and content of educational programmes, including "Academic Policy" and "Regulations on Residency" of KMU NJSC. The Department of Academic Work, School of Residency and Professional Development is responsible for the selection and implementation of innovations in the educational process.

The EP of the residency at KMU NJSC correspond to the State Comprehensive Education Standard. There is a logical sequence of modules/disciplines in the Working Curriculum, EP, providing the formation of competences. The following factors are taken into account in the formation of the EP in Clinical Pharmacology: the contribution of each discipline to the formation of competencies at a certain level (course), i.e. the responsibility of both core disciplines and disciplines of choice for the formation of a competent graduate, the definition of competencies for each discipline.

EP in Clinical Pharmacology speciality are logically interconnected with each other and are sequentially studied by residents.

There is a Centre for Simulation and Educational Technologies in the structure of KMU NJSC, which creates favourable conditions for improvement of pedagogical competences of the higher-education teaching personnel. The higher-education teaching personnel has access to full-text journals in the field of medical education.

For the successful implementation of the educational programme in Clinical Pharmacology specialty, the organisation has resources for the assessment of residents' practical skills. During training at clinical bases residents actively participate in various diagnostic and therapeutic manipulations and procedures. The head of the EP holds meetings with the administration of medical clinics on the organisation of clinical training and monitors the educational process.

The development of clinical skills and professional attitude to work is promoted by participation of residents in clinical discussions, consiliums, consultations, general rounds, where the student is directly imparted skills of professional attitude to work in the medical organisation and interprofessional communications of specialists of different profiles and levels.

Regulated compliance with the principles of safety and patient autonomy resident clinical pharmacologist when performing clinical work in accordance with the Code of the Republic of Kazakhstan "On the health of the people and the health care system", "Code of Academic Honesty" of KMU NJSC.

The catalogue of elective disciplines reflects the following topics: "Personalized pharmacotherapy", "Psychopharmacology" and "Oncopharmacology", which corresponds to the list of the Annex to the order of November 5, 2021 "On amending the order of the Ministry of Health of the Republic of Kazakhstan from November 30, 2020 № ҚР ДСМ-218/2020 On approval of the list of specialties and specializations subject to certification of specialists in the field of health care" and the introduction of certification course for doctors of clinical pharmacologists. The resident chose the elective: "Personalised Pharmacotherapy"

Teachers provide residents with methodological and didactic materials, additional literature to prepare for classes, in which \_100\_% are fully satisfied.

KMU NJSC has its own clinical base for 100 beds, and also concluded \_3\_\_contracts with the following medical organisations: Multidisciplinary hospital named after Professor H.J.Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region (Contract No. 342), Regional children's clinical hospital Municipal state enterprise of Health Department of Karaganda region (Contract No. 347) and Regional clinical hospital of Municipal state enterprise of Health Department of Karaganda region (Contract No. 353).

And to the question "Is there enough time for practical training (patient supervision, etc.)", resident J.Ayat answered in full agreement, stating that after the completion of classes, the instructor provides feedback (listening to your opinion, conducting mini questionnaires, working on mistakes).

To the question "Do resident representatives participate in the development of educational programmes?" resident J. Ayat confirmed her participation.

Resident J. Ayat noted that she is fully satisfied with the schedule of training sessions.

## 2.4 Organisation of education and the relationship between postgraduate medical education and health care delivery

Management of the educational process, reflected in the self-assessment report (standard 2) and general approaches to management were confirmed during the visit to the Department of Clinical Pharmacology and clinical base of Multidisciplinary Hospital named after Professor Kh.J. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region and conversation with the head and staff.

During the conversation with the doctor clinical pharmacologist I.A. Kim got acquainted with the work of departments, where the resident J. Ayat is directly engaged and during the cross interview it was established that under the leadership of the staff of the Department of Clinical Pharmacology noted great support and assistance in the rational use of medicines in the clinic, in providing counselling to heavy patients.

When talking to resident J. Ayat, the experts saw that the organisation promotes the development of residents' practical competences. At the same time, resident J. Ayat deepens his theoretical knowledge and develops communication skills.

For the 2020 - 2023 academic year there were no students for Clinical Pharmacology speciality under the state order. 2020-2022 years on the basis of the contract with the payment of tuition fees at the expense of a legal entity: Multidisciplinary clinic named after Prof. K.H. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region accepted 1 resident J. Ayat on Clinical pharmacology speciality. Clinical bases of KMU NJSC provide an opportunity to master knowledge and skills in the field of drug circulation and counselling **RILS** (ПИЛС?).

Resident J. Ayat in Clinical Pharmacology is actively involved in the process of medicines circulation in medical organisations to support public health, in particular for patient education. As part of the training, the resident is involved in expert work by conducting and then dissecting the results of clinical-pharmacological expertise on the use of medicines.

This is facilitated by mentoring, which is carried out at the Department of "Clinical Pharmacology and Evidence-Based Medicine".

When questioning the resident J. Ayat answered that teachers at the classes apply active and interactive teaching methods quite often.

In the professional, personal growth of residents in achieving success in academic medicine mentoring plays an important role.

According to the "Regulations on Residency" approved by the Decision of the Board of the KMU NJSC dated 23 August 2022, Protocol No. 18, the mentoring system is defined.

On Clinical pharmacology EP the doctors - clinical pharmacologists of regional clinics T.K. Sagadatova and J.V. Myasnikova are involved.

**EEC conclusions on the criteria.** Compliant out of 30 standards (including 22 basic, 8 improvement standards): fully -29, partially - 1 (2.1.8.), not compliant - 0.

**Standard 2: fulfilled**

**Recommendations for improvement identified during the external visit:**

- 1) Taking into account the planned increase in the number of resident students in Clinical Pharmacology programme, it is recommended to provide for the participation of a mentor in the educational process.

### Standard 3: RESIDENT ASSESSMENT

#### **Evidence of compliance:**

##### **3.1 Evaluation method**

The Department of Clinical Pharmacology and Evidence-Based Medicine has implemented an appropriate evaluation policy that allows for a versatile assessment of residents' academic achievements. During the interview resident J. Ayat told about the forms of evaluation, **for example**, assessed in points on a 100-point scale, corresponding to the internationally accepted letter system with

numerical equivalent (positive grades, in descending order, from "A" to "D", and "unsatisfactory" - "FX", "F") and grades on the traditional system and that she is satisfied with.

For the purpose of formative, systematic assessment the control of knowledge, skills and abilities is carried out at classroom (practical) classes, fulfilment of tasks on Independent work of residents, Independent work of residents with teachers. The curriculum of the discipline defines various types of current control of students' progress: oral questioning, written control, tests, solving cases, making a presentation, compiling a drug formulary, conducting clinical and pharmacological expertise, conducting pharmacovigilance on a special platform, etc. of current progress.

Syllabuses reflect the grading policy for the assignment with the indication of its components, content, criteria and terms of assignment evaluation.

Thus, to verify the data of standard 3, the experts asked questions to the acting head of the Clinical Pharmacology and Evidence-based Medicine Department and the head of the EP E.A. Yukhnevich and checked the documents and methods for the evaluation of residents.

In accordance with the Academic Policy of KMU NJSC, it is carried out by using a comprehensive approach to the evaluation of the results of training of residents in Clinical Pharmacology speciality.

Also, with the help of the information system "Platonus", the programme session.kgmu.kz, the automation of resident evaluation is actively used, which ensures compliance with the principles of academic honesty and objectivity of evaluation.

During the visit to the organisation and during the interview with the staff of the department, the commission verified that there is a documentation system that is transparent and accessible to all faculty and staff and includes such documents as annual individual plans, annual reports, unit regulations, contracts with faculty and residents and teaching and methodological documentation (work programme, work study plans, syllabuses, journals), assessment tools (checklists, sheets), certificates, certificates and credentials. A review of the website showed that its pages contain documents necessary for residents and have information that is regularly updated.

### **3.2 The relationship between assessment and learning**

The results of resident assessment are documented according to the Academic Policy in the Platonus AIS programme, where the resident's personal account contains his/her data, individual study plan, history of educational achievements, involvement of stakeholders in the assessment, standardised approaches to the assessment of learning outcomes are applied.

There is insufficient validation of assessment methods due to the specificity of Clinical Pharmacology speciality is noted in the self-evaluation report.

During interviews with 2 faculty members regarding assessment methods, the experts received convincing information that the relevance of graduates' training to the modern development of medical practice and science. Residents also shared their opinion about the timeliness of tests, counselling before examinations, clarity of the whole evaluation procedure and its fairness. For example, residents said that in practical clinical work residents are daily involved in the processes of interprofessional interaction between doctors of different specialities: therapeutic, surgical, obstetrician-gynaecological and paediatric doctors, nursing staff. Participating in the work of morning doctors, consiliums, multidisciplinary teams, participation in the journal club.

During the visit to the organisation, the management was asked: "Are external examiners involved to improve the fairness, quality and transparency of the assessment process?" And the answer was yes, representatives of practical health care are involved.

The experts looked at the resources for organising the assessment of knowledge and practical skills, namely the registrar's office.

Examination materials are discussed at the department meeting and peer-reviewed by external reviewers - representatives of practical health care.

During the conversation with the representative of employers - Deputy Director of Multidisciplinary clinic named after Prof. K.H. Makazhanov Municipal state enterprise on the right of economic management G.S. Kobzhanova noted the compliance of training graduates to the modern development of medical practice and science. Also noted that in 2021-2023 resident J. Ayat studies on

Clinical Pharmacology speciality on a paid basis, as there is a deficit of doctors of clinical pharmacologists in practical health care.

When examining the portfolio of resident J. Ayat, there were presented acts of clinical and pharmacological expertise, drug formularies, results of ABC\VEN analyses, reports on Continuous Professional Development, presentations and other materials, which confirms the achievement of the final learning outcomes of the student.

*EEC conclusions on the criteria* meet out of 11 standards (including 7 basic, 4 improvement standards): fully - 10, partially - 1, do not meet - 0.

*Standard 3: fulfilled*

*Recommendations for improvement identified during the external visit:*

- 1) It is recommended that the list of external examiners be expanded with rotating representatives from the practice health service

## **Standard 4: RESIDENTS**

### **Evidence of compliance:**

#### **4.1 Admission and selection policy**

The organisation has a policy on admission of residents, which is called "Academic Policy", exactly in the section "Rules of admission, progress of students, certification", which is revised annually.

The policy on admission of residents was described by the Acting Head of the Department, Head of the EP in Clinical Pharmacology speciality. Approaches to the admission of residents are based on the requirements of the country and internal regulations, namely, the order of the Ministry of Health of the Republic of Kazakhstan "On approval of the rules of placing a state order, admission to training and training of medical personnel in residency" from 15 December 2020 № КР ДСМ-270/2020, Order of the Ministry of Education and Science of the Republic of Kazakhstan from 31.10.2018 No. 600 "On approval of the standard rules of admission to training in educational organisations implementing educational programmes of higher and postgraduate education".

During the period 2016-2022, the resident B.A. Kozhakhmetov studied on Clinical Pharmacology EP, who successfully completed the course and received an "excellent" grade in the final examination. Currently works as a doctor of clinical pharmacologist in Kostanay Regional Children's Hospital.

In 2021-2022 academic year on the basis of the contract with the payment of tuition fees at the expense of the legal entity: Multidisciplinary clinic named after Prof. K.H. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region at the Department of Clinical Pharmacology and Evidence-based Medicine accepted one resident J. Ayat.

Thus, the experts have validated the data according to Standard 4. In general, all criteria are met. The experts familiarised with the documentation on admission of residents, including the "Academic Policy", orders on admission to the residency. The documents are properly drafted, there are no comments.

KMU NJSC has a resident development programme, which includes the implementation of student-centred learning. The resident of 7R01109 Clinical Pharmacology EP J. Ayat is included in the membership of such advisory bodies as the Council of the school of residency and postgraduate development since 2021.

The automated information system "Platonus" is used in order to provide effective information support for the processes of management of educational activities of the university. The head of the EP and responsible teachers of the discipline conducts attestation of students with information about absences. Monthly The issues of attestation are discussed at the meetings of the department, the council of the School of Residency and Professional Development.

#### **4.2 Number of residents**



The number of accepted residents is regulated by the state order of the Ministry of Health of the Republic of Kazakhstan, orders of the Ministry of Information and social development for the training of medical personnel and opportunities for their clinical training, the maximum permissible load on higher-education teaching personnel, clinical tutors, material and technical resources of the university and clinical bases. The number of accepted residents is constantly coordinated with relevant stakeholders, taking into account the need for medical personnel in haematology. Revisions are carried out on a regular basis, taking into account the needs of the sector and the situation on the labour market.

For 2020 - 2023 academic year there are no students under the state order, 1 student is accepted for 2020-2022 years, on the basis of the contract with payment of tuition fees at the expense of legal entities and / or individuals of Multidisciplinary clinic named after Prof. K.H. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region.

Purposeful work with all stakeholders is carried out, with the purpose of which is to attract students. Despite the fact that there was planned admission to the resident, due to the lack of grants and accreditation in Clinical Pharmacology speciality, there were no applicants.

#### **4.3 Supporting and counselling residents**

In Clinical Pharmacology speciality, supporting and counselling in the residency is provided with the participation of the Head of the Department Sh.S. Kalieva, Head of the EP E.A. Yukhnevich, faculty members, doctors of the clinical base. Information about the training in residency is also posted on the official website.

In order to present their proposals to optimise the management processes on the official website of KMU NJSC operates a virtual reception of the rector and corporate e-mail.

The KMU NJSC has a student service centre, which provides services to students on the principle of "one window". The principle of work is the quality and accessibility of services, inadmissibility of bureaucracy and red tape in the provision of services. Anti-corruption, accountability and transparency in the sphere of services. AIS provides optimisation of work of all participants of the process and electronic document flow.

In order to unlock the creative potential, great attention is paid to the socio-cultural, educational, scientific work of teaching staff and students. In order to unlock the creative potential of residents, great attention is paid to socio-cultural, educational, scientific work with students.

Creative circles (27 circles) of the KMU NJSC carry out cultural and mass activities in order to unlock the creative potential of residents.

On the basis of KMU NJSC functions "English Club" and "Polylingual Club" for those wishing to learn foreign languages and improve their language skills Since 01 October 2019. Also, since 2013, a sports club has been operating, where 20 sections for various sports are functioning.

Based on the "Regulations on the Service" in the Student Support Service, the psychologists, who are on the staff of the University, provide psychological adaptation and information support to students. On the basis of the Clinical and Diagnostic Centre of the Clinic of Occupational Diseases (15 Mustafina St.) there is a Youth Health Centre, where doctors psychologist and psychiatrist conduct appointments. Regular work is carried out with residents to improve their communication competence, prevent conflicts in practical medical activity and prevent burnout syndrome.

In accordance with the Regulations on the Scientific Society of Young Scientists and Students of the University, the Council of Young Scientists and Students is functioning.

#### **4.4 Resident Representation**

In the course of training in the disciplines of the programme, the resident clinical pharmacologist has the opportunity to participate in the organisation of the curriculum of Clinical Pharmacology speciality, also actively involved in the advisory, consultative, and collegial bodies of the KMU NJSC.

Residency students are regularly invited to the meetings of advisory bodies and take part in the discussion of issues in the context of the speciality. The proposals and recommendations of the residents are taken into account by the members of the advisory bodies and are taken into account when forming the final decision of the meeting. The staff of the School of Residency and Professional



Development has a decisive right when approving candidates from among the residents to the School Council and Senate, where the main criterion is the academic performance and active life position of the learner. The resident of the 1st year of study on 7R01109 Clinical Pharmacology EP J. Ayat is included in the Council of the School of Residency and Postgraduate Development is included from 2021.

#### 4.5 Working conditions

Residents studying on the basis of educational grants are paid state scholarships in accordance with the Decree of the Government of the Republic of Kazakhstan No. 799 dated 10.10.2022. "Rules of appointment, payment and amounts of state scholarships", Regulations on the order of appointment of scholarships established by the President of the Republic of Kazakhstan.

Residency students have the possibility of additional work in the position of resident physician under the guidance of a clinical mentor in the chosen field of medicine at 0.5 rate in medical organisations, or according to the certificate of a specialist obtained upon completion of the relevant internship on the basis of the Order of the Ministry of Health of the Republic of Kazakhstan from 21.12.2020 No. ҚР ДСМ-305/2020 "On approval of the nomenclature of specialties and specialisations in the field of health care, nomenclature and qualification characteristics of positions of health care workers".

In accordance with the current agreements with clinical sites (standard 6.2) "The Clinic undertakes to ensure admission of students to patients and to all structural units of the Clinic in accordance with the needs of the educational process, except for cases when admission of students to the therapeutic process is not allowed by the current legislation and/or the requirements of patients".

In Clinical Pharmacology speciality as clinical bases of residency are: Clinic of the Medical University, Multidisciplinary clinic named after Prof. K.H. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region, Regional Children's Clinical Hospital Municipal state enterprise on the right of economic management of Health Department of Karaganda region, Regional Clinical Hospital Municipal state enterprise on the right of economic management of Health Department of Karaganda region. The presence of the department staff as doctors of clinical pharmacologists plays a huge role for the participation of residents in all therapeutic activities carried out in clinical bases.

На основе интеграции теории и клинической практики осуществляется подготовка в Based on the integration of theory and clinical practice, training in residency is carried out with the involvement of residents in personal participation in the provision of medical services and responsibility for the activities to provide care to patients under the supervision of a clinical mentor, faculty. Resident J. Ayat since 01.09.2022g is employed on 0.5 rate in Multidisciplinary clinic named after Prof. K.H. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region, which also reflects professional autonomy and decent assessment of professional skills of the resident by a potential employer. During the training period, the resident is involved in all types of treatment activities: counselling patients and doctors on RILS, conducting clinical and pharmacological expertise, participation in the drug circulation process in the clinic, pharmacovigilance, etc. To meet the needs of practical health care, the KMU NJSC engages residents to provide on-the-job medical services at the request of medical organisations and organises travelling residencies.

According to the form No. 026/y, approved by the order of the Ministry of Health of the Republic of Kazakhstan residents have the right to issue an academic leave of absence for illness, lasting from 6 to 12 months on the basis of the conclusion of the medical advisory commission at the hospital or outpatient-polyclinic organisation. After the academic leave, the student continues his/her education on the same educational programme, from the same course (and academic period), from which he/she took this leave.

It should be noted that comprehensive support and counselling of the resident in the process of training, as well as participation of the resident in the collegial bodies of the university are the strong points of this standard, it is also necessary to increase the demand for Clinical Pharmacology speciality among

students and expand the contingent of students for training of clinical pharmacologists by increasing the number of grants from the Ministry of Health of the Republic of Kazakhstan .

*EEC conclusions on the criteria.* Compliant out of 30 standards (including 17 basic, 13 improvement standards): fully compliant - 16, partially compliant -1 , non-compliant - 0

*Standard 4: fulfilled*

*Recommendations for improvement identified during the external visit:*

1) Provide for measures to attract foreign residents in Clinical Pharmacology EP and planning of this process.

## **Standard 5: TEACHERS**

### **Evidence of compliance:**

#### **5.1 Recruitment and selection policy**

The personnel policy of KMU NJSC reflects the procedure and rules of selection of potential employees in accordance with the requirements of the standard qualification characteristics of positions of medical education employees on the basis of the order of the Ministry of Education and Science of the Republic of Kazakhstan dated 13.07.2009 No. 238. "On approval of standard qualification characteristics of posts of pedagogical workers and equated persons". in accordance with the Labour Code of the Republic of Kazakhstan dated 23 November 2015 No. 414-V, Rules for the admission of employees in employment.

The total number of staff is 4, including 4 staff teachers and no part-time teachers. The experts are familiar with the personnel policy, which is implemented to maintain the optimal level of numerical and qualitative composition of staff, their professional and social development to ensure high quality of the educational process and training of competitive specialists in the residency, taking into account the needs of the labour market ( of 11.01.2021. Protocol No. 1). At the Department of Clinical Pharmacology and Evidence-Based Medicine the following staff members provide training of residents in Clinical Pharmacology speciality:

In order to verify the data of Standard 5, external experts obtained the opinion of teachers about human resources policy, which determines the policy in the field of human resources management. When talking to the head of Clinical Pharmacology EP Assoc. Professor of the Department of Clinical Pharmacology and Evidence-based Medicine, Dr. PhD E.A. Yukhnevich answering the question of how the educational process is carried out at the department, it was found out that: "Implementation of Clinical Pharmacology EP is carried out by the teaching staff of the Department of Clinical Pharmacology and Evidence-based Medicine. The share of full-time teachers is 100%, the percentage of tenure - 50%, the provision of human resources, including teaching staff, clinical tutors and educational staff - 100%. Faculty members of the Department of Clinical Pharmacology and Evidence-Based Medicine are certified specialists in the field of taught disciplines with more than 20 years of work experience and carry out clinical activities at the clinical bases of the University and University Clinics.

During the questionnaire survey of teachers, it was found that all employees are fully satisfied with the organisation of work and workplace in this educational organisation. In this, educational organisation teachers have an opportunity to do scientific work and publish the results of research and development - 94% fully agree, 6% partially agree. Satisfied with the work of HR (personnel) service - 87% fully agree, 11% partially agree. Salary is satisfactory - 58,4% completely agree, 13% partially agree.

#### **5.2 Commitment and development of teachers**

In order to verify the data of Standard 5, during the meeting with the head of the human resources department and during interviews with teachers, the experts obtained an opinion on the approaches to the development of teaching competence of teachers, motivation to work with residents, the implementation of mentoring, which includes that the University on the basis of the Order of the MES RK No. 606 dated 31 October 2018 "On approval of the average ratio of students to teachers to

calculate the total number of teaching staff of organisations of higher and (or) postgraduate education, with the exception of military, special educational institutions, cultural education organisations" pursues a personnel policy to ensure that the profile of teaching staff strictly corresponds to the range and balance of teaching skills, which is achieved by constant monitoring and regulation of the ratio of teaching staff teaching basic and clinical disciplines based on the needs for effective implementation of educational programmes, as well as on the total volume of teaching load.

The experts received answers about the professional development programme for teachers, which is held annually and 4 teachers involved in the implementation of the educational programme were trained for 2020-20223. These activities are financed by the university.

The expert checked the certificates of teachers on such topics as "Innovative teaching technologies in medicine" ( Sh.S. Kalieva), "Management of medicines of medical organisation" (Sh.S. Kalieva) "Training on supervision of consumption of antimicrobial drugs in hospitals in Kazakhstan" - 4 (Sh. S. Kalieva, E.A. Yuxhnevich, T.K. Sagadatova, J.K. Myasnikova), "Topical issues of clinical pharmacology" - 2 (Sh.S. Kalieva, J.K. Myasnikova), "Clinical pharmacology of antimicrobial drugs" - 2 (E.A. Yuxhnevich, T.K. Sagadatova).

Head of the Department of Clinical Pharmacology Sh.S. Kalieva, who successfully passed the Bolashak competition for a two-month internship in clinical pharmacology in Israel in spring 2023 and was on the internship during the accreditation.

The experts found that faculty members initiate research and development topics for residents, stimulate the need for additional training and independent work with literature, medical documentation

In the organisation there is an opportunity for career growth and development of teacher's competences - 100% of questioned teachers answered. Trained on professional development programmes - 100% less than 1 year ago.

The organisation implements social support programmes for teachers - 100% answered that "yes, there are such programmes", 100% "I have already taken advantage of it", 50% of respondents answered.

**EEC conclusions on the criteria.** Compliant out of 7 standards (including 5 basic, 2 improvement standards): fully -7 , partially - , not compliant - 0.

**Standard 5: fulfilled**

**Recommendations for improvement identified during the external visit:**

- 1)
- 2)

## **Standard 6: EDUCATION RESOURCES**

### **Evidence of compliance:**

#### **6.1 Material and technical support and equipment**

To implement the educational programme, the University has five educational buildings with a total area of 29,160.6 square metres. The structure of the research centre of KMU NJSC includes a research laboratory of collective use, sanitary-hygienic laboratory, vivarium. The laboratories are equipped with modern laboratory equipment.

The total area of the library is 1526 square metres, the book storage area is 941.6 square metres. The number of seats in the reading rooms is 443. The library includes the department of acquisition and bibliography and the department of scientific and educational literature service (scientific literature subscription, two subscriptions of educational literature, reading room, hall of periodicals, hall of electronic resources, interactive hall). The computer park of the library consists of 113 computers, of which 88 thin clients (TC), 21 personal computers (PC) are located in the subdivisions of the library, 4 PCs and 63 TCs - in the hall of electronic resources and 25 TCs - in the interactive hall, the whole park of computers is connected to the INTERNET network. Wi-Fi zone is spread all over the territory of the library.

To implement the educational process in the speciality "7R01109 Clinical Pharmacology" book supply of basic and additional literature is 100%. Of these, the total number of textbooks, including in

the Kazakh language, is 1034 copies, scientific literature - 706 copies, electronic publications - 13. The volume of the electronic catalogue of the MKU is 83,740 records.

In the Centre for Simulation and Educational Technologies (CSET) the resident can simulate various clinical situations close to the real conditions of a doctor's work. It is equipped with demonstration devices, mannequins for training in BLS, ACLS (BT-CPEA), PALS (mannequin of a newborn baby, a child of 5 years old to practice cardiopulmonary resuscitation in paediatrics), electrocardiograph, defibrillator.

Satisfaction of students, teachers with material and technical support of the educational process is analysed annually based on the results of questionnaires.

*The questionnaire survey of teachers showed that 93.8% of respondents fully agree that the university has enough equipment and resources for training residents in accredited programmes, 6.3% - partially agree. 87.5% are fully satisfied with the organisation of the educational process, 12.5% are partially satisfied*

## **6.2 Clinical facilities**

Four medical institutions of city and regional significance - the Clinic of the Medical University, Multidisciplinary hospital named after Professor H.J.Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region, Regional children's clinical hospital Municipal state enterprise of Karaganda region and Regional clinical hospital of Municipal state enterprise of Health Department of Karaganda region are the clinical bases for the implementation of the educational process in Clinical pharmacology speciality 7R01109.

All clinical facilities meet the requirements of the order of the Minister of Health of the Republic of Kazakhstan dated December 21, 2020 No. ҚР ДСМ-304/ 2020 "On approval of regulations on clinical base, clinic of health education organisation, university hospital, residency base, integrated academic medical centre and requirements for them".

The bed fund of the Clinic of the Medical University is designed for 100 beds, Regional children's clinical hospital Municipal state enterprise of Karaganda region - 290 beds, Multidisciplinary hospital named after Professor H.J. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region - 565 beds, Regional Clinical Hospital state enterprise of Health Department of Karaganda region- 1075 beds.

There are contracts with three medical institutions on joint activities within the educational process (No. 347, No. 342, No. 353 dated 01.09.2022).

Clinical supervision of clinical and therapeutic work of residents is carried out by clinical mentors - staff members of the department who directly perform clinical work as clinical pharmacologists in these medical organisations.

During the visit to the clinical facilities, the review of the resources by the experts showed that they correspond to the training programmes and are available for both teachers and residents. There is a sufficient number of clinical facilities of different profiles, good material and technical equipment of clinical facilities and department for the educational process, sufficient library fund.

Access to international full-text electronic databases, communication and information platforms with annual updates of literature on the specialities of the residency is provided. KMU NJSC is distinguished by a developed infrastructure (high-quality Internet, corporate mail, student portal), the resident has access to the information system of health care, and an international expert is involved in training within the framework of long-term international cooperation with the University of Auckland (New Zealand).

In order to validate the implementation of the self-assessment report data and to obtain evidence on the quality of the programmes, interviews were conducted with specialty residents. The experts asked questions about satisfaction with training, sufficiency of time to supervise patients, work in DamuMed with medical documentation, satisfaction with teaching methods and qualification of teachers, social and moral support of residents in need, participation in "Journal Clubs", accessibility of the resource of international databases of professional literature. The residents showed their commitment to the organisation of education, were active in answering questions from external experts, demonstrated their judgement on the organisation of training, assessment of their skills, advisory

support, opportunities to participate in R&D, funding, demonstrated command of English when answering questions from the foreign expert Sergey Ryzhkin. The experts studied the residents' documents (portfolios, results of residents' assessment-checklists, results of residents' questionnaires).

*The results of the questionnaire survey of resident J. Ayat show that 100% is satisfied with the organisation of recreation and catering conditions for students (recreation rooms) on the territory during breaks between classes.*

However, the following areas for improvement have been identified: increasing the scientific potential of the department and the university through active participation of residents in the research activities of the department, participation in conferences and other scientific and educational seminars at the international and national levels, participation in funding competitions for scientific projects of the Ministry of Health and the Ministry of Health and Education, strengthening the implementation of internal and external academic mobility programmes for residents to expand ties with medical organisations within the Republic of Kazakhstan and foreign countries, increasing the level of scientific and educational activities of the department, increasing the level of the academic mobility of residents in the Republic of Kazakhstan and other countries, increasing the level of scientific and educational activities of the department, and increasing the level of scientific and educational activities of residents.

### **6.3 Information technologies**

During the visit to the Information Technology Department, the experts got acquainted with the work of the information platform for obtaining necessary information on the educational process for residents of all courses and specialities - Student Portal, additional information resource - Platonus platform for obtaining information on the results of current and final academic performance.

Residents and faculty have access to the following educational electronic resources: CochraneLibrary - database on evidence-based medicine; CBSeBooks - database of electronic books by CBSPublishers&DistributorsPvt. Ltd. Ltd; EBSCO - includes the following databases: EBSCOhost Research Databases (CINAHL Complete), DynaMed, Scientific & Medical ART Imagebase, DynaMed Plus, EBSCO Discovery Service; BMJBestPractice is a clinical decision support tool; BMJLearning is an online learning resource for healthcare professionals; electronic libraries Student's Consultant, Doctor's Consultant, Lan, Epigraf; Epigraf multimedia textbook portal; Aknurpress digital library; Republican Interuniversity Electronic Library (RIEL)

Users are informed by sending information to the corporate Outlook mailing list, as well as posting information on the KMU website, KMU Portal, KMU Student Portal, SharePoint, Instagram page and Telegram messenger. The KMU website has a "Library" section in Kazakh, English and Russian. The library also provides feedback to the readers on the Student Portal and Telegram bot, where students can ask questions, view the calendar of events, documents, instructions and videos on working with electronic resources, etc.

Moreover, within the framework of the national subscription the library provides access to the platforms: Web of Science (Clarivate), Scopus Elsevier, Science Direct.

In order to effectively use information and communication technologies in the educational process, the platforms "Zoom", "Teams", "Webex" are used for practical classes in a hybrid format (offline-online). The teaching staff has done a lot of work to transform traditional forms of teaching into the electronic format of teaching: virtual blackboard "Padlet", work in online rooms, googlesurvey and other innovative technologies when dealing with the topics of classes.

For effective use of new information technologies and access to patient data and healthcare information systems, the Comprehensive Medical Information System (CMIS) is used for consultative clinical activities.

With the development and introduction of remote technologies, the opportunities for residents to participate in international webinars and Congresses in online format have expanded. The head of the EP sends links to these events in chat with residents and monitors their participation directly at webinars in connection with the joint presence of the head of the EP or higher-education teaching personnel. Key points after the webinars are discussed in the practical sessions.

Resident J. Ayat noted *that she fully agreed with the provision of students with methodological*



*and didactic materials, additional literature to prepare for classes.*

#### **6.4 Clinical teams**

During the visit to the clinical base, the experts were convinced that the resident in Clinical Pharmacology performs activities in close teamwork with physicians of various specialities of therapeutic, surgical and paediatric profile and other residents. The performance of clinical work consists of consulting with physicians on the rational use of medicines, participation in consiliums, joint discussion of the plan of management of patients with attending physicians, providing the results of clinical-pharmacological expertise, speaking in the journal club, clinical reviews of complex patients. In the course of clinical work, department heads, physicians provide feedback in the form of a characterisation/feedback on the resident, which is attached to the portfolio.

Every year, on the basis of the CSET of KMU NJSC, a competition "Territory of Emergency Conditions" is held among residents, where in order to practice the skill of working in a team, a multidisciplinary team is formed, including residents-cardiologists, residents-animatologists, residents-surgeons etc. The teams are evaluated by expert physicians of practical healthcare, potential employers, who highly appreciate the teamwork of the KMU NJSC residents. In 2022 in the competition on the topic "Road traffic accident" the skills of resident-clinical pharmacologist J. Ayat were highly appreciated and awarded a 1st degree certificate.

Residents work in a team with other residents and interns on the same clinical base, which contributes to the implementation of the principle of "teaching others - I learn myself".

Students have free access to patients on clinical bases and all conditions to improve their practical skills have been created fully agree, 100 per cent.

#### **6.5 Medical research and development**

In total for the period 2019-2022, the staff of the department involved in the training of residents in the direction of Clinical Pharmacology EP published more than 23 articles outside the implementation of scientific-technical programme, including 12 publications in domestic journals, and 11 in journals of near and far abroad. At the head of the department Sh.S. Kaliyeva h-index Hirsch - 3 (Scopus), 1- (Web of Science), 6- Google Scholar. E.A. Yukhnevich has h-index of Hirsch - 2 (Scopus), 2 - (Web of Science), 5 - Google Scholar. Myasnikova J.V. h-index - 1 (Scopus), 1 - (Web of Science), 1 - Google Scholar.

Head of the Department of Clinical Pharmacology and Evidence Based Medicine Sh.S. Kalieva from 2017 to 2020 participated in the internal grant of KMU NJSC; "Comprehensive evaluation and optimisation of multiple sclerosis therapy"; from 31.07.2018-31.07.2020. - International project DEEP-RAFT - Improving the management of patients with atrial fibrillation to prevent stroke and venous thromboembolism in Eastern Europe; from 15.10.2019-15.10.2022. - International project "SPRING" Erasmus+ - "Setting Peer Review Instruments and Goals for Medical/Health Education - Defining Peer Review Instruments and Goals in Medical Education" Grant EuroUnion; from 18.05.2021-31.12.2021. - "Evaluation of the effects of SARS-CoV-2 infection in the structure of neurological diseases" (№256/12-2 from 15.06.2021) scientific project grant funding Ministry of Education and Science of the Republic of Kazakhstan.

Departments together with clinical facilities provide the opportunity to carry out research work. In the first year of training, residents are assigned topics of scientific research, which is reflected in the individual plan of residents and approved at the meeting of the department.

The head of the EP and teaching staff, who teach disciplines in the residency, provide advisory support in the performance of academic research work of theses and scientific articles by residents, motivate residents to participate in scientific congresses and student conferences with reports. Residents in the course of Independent work of residents analyse literary sources, working in the library using electronic resources.

Resident J. Ayat is actively involved in contributing to the department's research efforts through her own study evaluating the effects of post-coital syndrome on undergraduates in the Department of Clinical Pharmacology and Evidence-Based Medicine. The results of this study were published in the

journal Russian Science Citation Index: MEDICUS. 2022. № 6 (48). Pp 44-50. Also the resident conducted a study on the consumption of medicines in elderly patients and assessment of polypragmasy in this category of patients, the results of which are planned to be presented at the conference "Science and Youth: discoveries and prospects" 12-13 April 2023 in Medical University of Astana NJSC with the presentation of the results of the initiative study on "Safety of drug therapy in geriatric practice" and "VI-th Central Asian International Scientific and Practical Conference on Medical Education "Education".

The EP also includes the discipline "Stages of clinical trials and regulation of drug supply in medical institutions" to form the competence Research: capable of researching and evaluating the results of treatment of their patients, evaluating and implementing treatment principles based on scientific evidence.

During training, the formation of residents' skills in the field of research methodology enables them to evaluate critically medical information for rational use in practice.

## 6.6 Expertise in education

The procedure of expertise in education on the quality of planning, implementation and evaluation of EP is a systematic process and is carried out by the following structures: Department of Academic Affairs (approval of EP), Dean's Office of Internship and Residency (implementation of EP), Educational Programme Committee (EPC) (planning, development and evaluation of EP), OUMR (OYMP?) (monitoring of EP), Quality Management System Department. The EPC includes teachers, representatives of professional associations, employers, representatives of students.

EP on Clinical Pharmacology was discussed at the meeting of the Department of Clinical Pharmacology and Evidence-Based Medicine, reviewed by the Head of the Department of Clinical Pharmacology KMU NJSC, clinical pharmacologist of the highest category N.S. Ahmadyar, at the Council of the School of Residency and Professional Development, agreed with the supervising vice-rector and approved by the Chairman of the Board - Rector 09.04.2022. During the development of EP "7R01109 - Clinical Pharmacology" the members of the Professional Association of Clinical Pharmacologists and Pharmacists Republican Public Union were involved in the discussion. The EP was externally reviewed by the UHEMS and after a favourable decision of the experts it was placed in the register of the Unified higher education management system.

In order to ensure quality implementation of the EP, the university faculty constantly works on improving the content of the EP, conduct their analysis with review by leading external experts in the field of clinical pharmacology. The expert of the EP of Clinical Pharmacology residency is N.S. Akhmadyar, head of the Department of Clinical Pharmacology of Astana Medical University NJSC, doctor-clinical pharmacologist of the highest category. During the development of EP "7R01109 - Clinical Pharmacology" the members of Professional Association of Clinical Pharmacologists and Pharmacists Republican Public Union were involved in the discussion.

The EP "7R01109 Clinical Pharmacology" is regularly evaluated by obtaining feedback from the resident and the faculty, as well as conducting analyses of the resident's educational achievements. Annual questionnaires from employers and residents are used as feedback for measures and corrective action plans to improve the EP and specialty curricula.

All graduates of the residency programme are successfully employed and have positive characteristics as specialists.

In order to motivate faculty members to conduct research in the field of medical education, the availability of publications in this field is used as an indicator of the department's activity in the rating, which is also taken into account in differential payment, as reported by both administration and faculty members in interviews.

Resident and graduate residency questionnaires are used as feedback for measures and corrective action plans to improve the RP. The sources of information are the results of students' progress in disciplines, results of questionnaires, reports of departments, schools, office-registrar, acts of external and internal inspections, FCA (Final state attestation) reports.

*According to the results of the questionnaire, resident J. Ayat is fully satisfied with the*

## **organisation of teaching.**

### **6.7 Training in other institutions**

Within the framework of academic mobility memorandums of co-operation in the field of health care, medical education and science were concluded with 24 medical universities of Kazakhstan, with 83 universities of near and far abroad.

KMU NJSC is included in the Directory of Medical Schools "Avicenna" of the World Health Organisation and the World Federation of Medical Education. KMU NJSC is a member of the Association for Medical Education in Europe (AMEE), Association for the Study of Medical Education (ASME), Organisation for the Protection of PhDs in Biomedicine and Health Care in the European System (ORPHEUS), European University Association (EUA), Organisation for University Mobility in Asia and the Pacific (UMAP), International Association for the Development of Education (IADE), Association of Higher Education Institutions of the Republic of Kazakhstan, Association for Medical Education in Asia (AMEA).

As part of the development of strategic partnership in 2016, a memorandum of co-operation was signed with the University of Lund, Sweden. More than 1000 students and employees of the university participated in international academic mobility programmes.

Every year more than 300 students take part in international scientific conferences and research. Thus, at the initiative of the University, since 2012 the Central Asian International Conference on Medical Education has been held, the main purpose of which is to exchange experience in improving medical education in Central Asian countries.

The University participates in the implementation of national programmes and projects of scientific research in the field of health care, international multicentre research SMART, METALL, UTIAP.

KMU NJSC interacts with foreign partners from near and far abroad. The Department of Clinical Pharmacology and Evidence-based Medicine since 2017 interacts with the University of Auckland (New Zealand) and organises the academic mobility of Professor D. Woods

The staff of the department is working on building relationships, actively interacting with national and international professional associations of clinical pharmacologists on the organisation of academic mobility.

Due to family reasons the resident could not participate in the academic mobility, therefore from 29.11.2021 to 10.12.2021 online training was organised and conducted by David Woods, representative of Evidence-Based Network in New Zealand, editorial director of Formulary New Zealand and Formulary for Children New Zealand, Professor of School of Pharmacy, University of Auckland (New Zealand). Professor David Woods' academic mobility to the Department of Clinical Pharmacology has been in place since 2017, teaching offline before the pandemic and online during the pandemic. The 2016-2018 residents were also trained with the 2016-2018 residents by the professor offline.

***EEC conclusions on the criteria.*** Compliant out of 21 standards (including 10 basic, 11 improvement standards): fully compliant - 17, partially compliant - 4, non-compliant - 0

#### ***Recommendations for improvement identified during the external visit:***

- 1) Increase resident participation in clinical trials
- 2) Utilise the capabilities of the molecular genetics laboratory
- 3) 6.7.3.-6.7.4 Provide for mastering the module on pharmacogenetic research and personalised pharmacotherapy using leading foreign model centres.

### **Standard 7: EVALUATION OF THE EDUCATIONAL PROGRAMME**

#### **Evidence of compliance:**

##### **7.1 Monitoring and evaluation mechanisms**

The monitoring mechanism of the EP includes several stages: planning, data collection, analyses/conclusions, necessary improvements and subsequent monitoring of changes. Each stage and



level in the quality assurance system of EP is regulated by the relevant normative-regulatory documents. In KMU NJSC the assessment and monitoring of EP is carried out in accordance with the Regulation on Academic Policy (approved by the Senate on 27.08.2021), the Regulation on Educational Programme Management (from 09.09.20 pr.14, amendments from 11.01.21 pr.1). The monitoring system is a continuous multilevel process, which covers the assessment of all areas affecting the quality of the EP.

According to the Academic Policy of KMU NJSC, all university structures involved in the implementation and quality management of the EP participate in the monitoring of the EP. The solution of issues on the management of the education programme is entrusted to the school councils, the quality of the EP is ensured by the participants of its implementation: the Dean of the School of Residency and Professional Development, the Head of the EP, module coordinators, those responsible for the discipline, heads of departments, teachers. Since 2020-2021 academic year, the Commission for ensuring the quality of the EP has been established, the main function of which is to monitor the implementation of the educational programme, and to assess the satisfaction of all stakeholders.

Intra-departmental monitoring is carried out by the department staff according to the Department Plan. Every month at the meetings of the department, the school discusses the methodological support of the EP, the implementation of the curriculum, the results of quality control of the educational process, the analysis of learning achievements of students. One of the forms of monitoring the quality of the educational programme is the intermediate and final independent attestation, which is carried out in the form of a comprehensive examination with the involvement of external examiners. The results of the independent examination of the National Centre for Independent Examinations, discussed annually at the meeting of the department, the Council of the School of Residency and Professional Development, the Senate and determine the need to improve the EP.

The Department of Strategic Development and Quality Management ensures quality assessment at the institutional level. Based on the audit results, a plan of corrective measures is developed and post-monitoring control is carried out.

Every year the need of practical health care in specialists according to the requests of health departments is taken into account, which are accumulated in the clinical department, transferred to the School of Residency and Professional Development, discussed with the profile departments, at the Academic Council. The University has mechanisms and criteria for systematic evaluation of teachers' performance, the Statute on Residency specifies the requirements for the qualification of teachers. Assessment and monitoring of the EP is carried out taking into account the needs of health care (changes in the laws and regulations, changes/additions to the National Qualification Framework, sectoral qualification frameworks; changes/introduction of new professional standards), the results of the residents' achievement of the final learning outcomes, the results of quality assessment of the educational programme (audit, stakeholder survey, accreditation results, etc.).

Training sessions in the residency programme are conducted using innovative technologies and interactive teaching methods. Monitoring of the achievements of the outcomes of the EP training is carried out by the responsible departments (School of residency and professional development, department, etc.) based on the results of interim, final attestation, Independent examination of graduates, questionnaires with all stakeholders - residents, higher-education teaching personnel, employers.

Resident student of the Clinical Pharmacology EP also participates in the formation of the EP his opinion is taken into account, data on the analysis of resident's satisfaction with the educational process. An important mechanism of evaluation of Clinical Pharmacology EP is the feedback from the resident by questionnaires after each discipline. According to the results of these data, no adjustment of the EP strategy is required, the resident's satisfaction with the educational process is high. The Strategic Development and Quality Management Department also conducts annual questionnaires for employers and students. Questionnaires for students are agreed with the Schools and include questions on the degree of satisfaction with the quality of the educational process, provision of resources, relationships with the staff of various departments, quality of the educational process at the departments, support and information. Questionnaires for employers assess employers' satisfaction

with the level of training of graduates, provide recommendations for improving the training of residents. The results of the questionnaire are discussed at the meeting of the School of Residency and Professional Development, the EP is adjusted on the basis of feedback with the participation of stakeholders. The School of Residency and Professional Development together with the Head of the EP analyses the employment rate of graduates. There were no graduates of the residency in Clinical Pharmacology speciality from 2019, in 2018 one resident B. Kozhakhmetov was graduated, who 100% was employed in the speciality.

All evaluation results, analytical briefs, decisions of collegial bodies are available on the university web portals.

Also, within the framework of the work of the Clinical Pharmacology EPC the assessment and comparison of the EP with foreign practices of training of doctors - clinical pharmacologists was carried out. The experience of European countries and the USA was studied. Based on the results of the analysis, proposals were submitted to the EPC for further development and revision of the State Comprehensive Education Standard, Model curriculum, professional standard for clinical pharmacology.

## **7.2 Faculty and resident feedback**

The HEI has an effective, continuous mechanism of internal quality assessment and expert evaluation of educational programmes, providing control over the implementation of the curriculum and set objectives, as well as feedback for their improvement. The University's advisory bodies (School of Residency and Professional Development, Quality Assurance Commission) have a proper representation of stakeholders in the evaluation of the educational process and outcomes of resident training programmes. The members of the School of Residency and Professional Development, the Commission participate in the discussion, review of the developed EP, monitor the EP in the course of its implementation in order to identify weaknesses for the subsequent introduction of corrective measures and improvement of the EP. At the level of the Department of Clinical Pharmacology and Evidence-based Medicine, the assessment of satisfaction with the educational process is carried out at the end of each discipline. Every year the university conducts a survey of employers on their satisfaction with the degree of training of graduates. The Quality Control Commission analyses the results of the questionnaire with subsequent discussion at the meeting of the School of Residency and Professional Development and decision-making on the improvement of the EP. There is a plan of corrective measures based on the results of the employers' satisfaction questionnaire. Employers are involved in the discussion of the expected learning outcomes; in the assessment of students' learning achievements and educational trajectories. Based on their feedback and recommendations, the key and final competences of the graduates of the residency programme are formed.

Resident survey coverage during the implementation of Clinical Pharmacology EP is 100%.

KMU NJSC actively involves faculty, representatives of practical healthcare and residents from the School of Residency and Professional Development as members of the Quality Assurance Commissions. This Commission conducts internal review of the developed EP, monitors the EP during its implementation in order to identify weaknesses for subsequent corrective actions and improvement of the EP.

At the Department of Clinical Pharmacology and Evidence-Based Medicine the resident's questionnaire is conducted to analyse the satisfaction with the quality of training, identify weaknesses and strengths, reasons for dissatisfaction with the training process. The results of the questionnaire are discussed at the department meeting, with subsequent decision-making on the organisation and content of the EP in order to improve it. Satisfaction of resident J. Ayat with the quality and process of training is high.

## **7.3 Resident and graduate outcomes**

The School of Residency and Professional Development together with the Head of EP conducts annual monitoring of employment of residency graduates. There were no graduates of the residency in Clinical Pharmacology speciality from 2019, in 2018 one resident B. Kozhakhmetov was graduated,

who was 100% employed in his speciality. The Department of Strategic Development and Management conducts an annual survey of employers on their satisfaction with the quality of training of graduates.

Residency training includes practical work in the clinic setting through the acquisition of relevant clinical/practical experience at the residency bases. Resident clinical pharmacologist J. Ayat is informed about the process of clinical practice during the training in the residency of Clinical Pharmacology EP through the resident's evaluation sheets, portfolio, feedback from doctors. On Clinical Pharmacology EP the graduate of 2018 B. Kozhakhmetov got a job in a medical organisation. The office-registrar records academic achievements of residents, provides organisation of all types of knowledge control and calculation of academic rating of students.

Vice-rector for scientific and clinical work controls the process of postgraduate education at the University in accordance with the State Educational Standards of the Republic of Kazakhstan. School of residency and professional development; in case of discrepancies, the reasons are determined, a plan of corrective actions is drawn up with the analysis of their effectiveness.

#### **7.4 Stakeholder engagement**

The head of Clinical Pharmacology EP carries out direct management of the training of residents. In 2021-2022 the head of the EP was the Head of the Department of Clinical Pharmacology and Evidence-based Medicine Sh.S. Kalieva, from 2022-2023 E.A. Yuxhnevich. At the stage of development and approval of the EP it is coordinated with leading specialists in the direction of residency from practical healthcare. After their positive feedback, the Commission for Quality Control organised at the School of Residency and Professional Development carries out an internal examination of the EP. The Commission consists of faculty members from the School, representatives of practical health care and residents. Faculty members and clinical mentors are jointly responsible for the resident's training and for the results of his/her education. Highly qualified specialists in the field of clinical pharmacology and related disciplines are involved as clinical mentors, who take an active part both in the training of residents and in the assessment of their clinical competencies during the entire educational process (360° assessment sheet), intermediate and final certification. During the final attestation, representatives of practical healthcare are included in the State Accreditation Commission.

Information is brought to the attention of stakeholders through participation in the work of collegial bodies, professional communities, training on monitoring and evaluation of educational programmes. So, the head of Clinical Pharmacology EP, 2022, E.A. Yuxhnevich participated in the training of trainers under the contract №SHIP-2.1/CS-03 project of the World Bank on the theme: "Methodology of transformation of professional standards in the process of development of educational programmes", Republican Centre for Health Development, Astana, 5-7.04.2021, the volume of hours - 36 hours, certificate № №SHIP-2.1/CS-03 project of the World Bank on the theme: "Methodology of transformation of professional standards in the process of development of educational programmes". Astana, 5-7.04.2021, the volume of hours - 36 hours, certificate No. 8789 and seminar "Instruction for developers and experts of the educational programme of certification courses", KMU NJSC named after S.D.Asfendiyarov", Almaty, 15.02.2022, certificate No. 92. Besides, KMU NJSC approved the Rules of information content of Internet resources of KMU NJSC, which are implemented by the Public Relations Service.

According to the results of the questionnaire resident J. Ayat's satisfaction with the quality and process of training is high.

#### **7.5 Procedure for approval of educational programmes**

According to the "Regulations on the management of the educational programme" and Academic Policy of the university the KMU NJSC EP on Clinical Pharmacology speciality is developed in accordance with the licence for the right to conduct educational activities within the groups of educational programmes according to the classifier of training directions. All stakeholders are involved in the process of development of Clinical Pharmacology EP and monitoring of educational activities within the framework of the EP. The development of Clinical Pharmacology EP is based on the principles of educational programmes construction: student-centred approach; competence-based

approach; result-oriented approach; modular structure of educational programmes; science-oriented learning. At the stage of EP development the evaluation of EP is simultaneously carried out, as it is discussed at the meetings of departments, School of Residency and Professional Development. Also the quality assessment of the educational programme project is carried out by the Commission for Quality Assurance according to the check-list.

EP on speciality "Clinical Pharmacology" is discussed at the meeting of the Department of Clinical Pharmacology and Evidence-based Medicine (Minutes No.7 of 25.02.2020), reviewer Head of the Department of Clinical Pharmacology KMU NJSC, doctor-clinical pharmacologist of the highest category N.S. Ahmadyar, at the Council of the School of Residency and Professional Development (Minutes No.7 dated 12.03.2020), agreed with the supervising vice-rector and approved by the Chairman of the Board - Rector on 09.04.2022.

During the development of the Clinical Pharmacology EP, members of the Professional Association of Clinical Pharmacologists and Pharmacists were involved in the discussion.

The EP was externally reviewed in USHEM and after a positive decision of the experts it was placed in the register of the Unified System of Higher Education Management.

Monitoring of the provision of educational resources for compliance and quality of clinical training EP is carried out by the department, Department of Academic Affairs, School of residency and professional development, internal audit. External assessment of material and technical base for clinical training is carried out by members of commissions for final state certification, post-licence control of the MES RK, members of the accreditation commission.

Thus, the strengths are the presence of the EP management policy and mechanisms for continuous monitoring of the EP for its improvement, wide involvement in the evaluation of educational programmes of students, teachers, employers, including in the composition of collegial bodies and improvement of the EP through feedback from residents, stakeholders. It should be noted that the EP "Clinical Pharmacology" was placed in the register of USHEM and was externally evaluated by leading specialists of RK in the speciality "Clinical Pharmacology".

The final certification of graduates takes place with the participation of independent examiners, which also improves the quality of assessment of achievements of the outcomes of the EP.

Passing the procedure of accreditation of the EP "Clinical Pharmacology" will increase the number of grants for training residents in this speciality.

***EEC conclusions on the criteria.*** Compliant out of 15 standards (including 10 basic, 5 improvement standards): fully - , partially - , not compliant - 0

***Standard 7: fulfilled***

***Recommendations for improvement identified during the external visit:***

- 1)
- 2)

## **Standard 8: MANAGEMENT AND ADMINISTRATION**

### **Evidence of compliance:**

#### **8.1 Management**

In accordance with the license № KZ32LAA00016018 dated 06.05.2019 in the direction 7R091 "Health (medicine)" the implementation of educational programmes of residency is carried out.

In accordance with the Law of RK "On Education", the Order of the Minister of Education and Science of the Republic of Kazakhstan No. 595 "On Approval of the Standard Rules of Activity of Educational Organisations of Relevant Types", the Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 600 "On Approval of the Standard Rules of Admission to Training in Educational Organisations Implementing Educational Programmes of Higher and Postgraduate Education", By the order of the Minister of Health of the Republic of Kazakhstan № КР ДСМ-249/2020 "On approval of the rules of assessment of knowledge and skills of students, assessment of professional preparedness of graduates of educational programmes in the field of health care and specialists in the field of health care", State Comprehensive Education Standard is carried out

management of the educational programme, also established by the Academic Policy of KMU NJSC, Regulations on the management of the educational programme, Regulations on residency.

The order of the Ministry of Education and Science of the Republic of Kazakhstan No. 600 regulates the procedure of admission of students, as well as the Policy of admission of students in KMU NJSC, approved on 27.05.2022 at the meeting of the Board of Directors (pr.37). The procedures for admission and selection of residents are described in detail in Standard 4.

Based on the Regulations on the management of the educational programme in KMU NJSC (09.09.2020, pr.14 of the Board meeting) the management of the educational programme is carried out. The School of Residency and Professional Development carry out coordination, control and monitoring of the implementation of the programmes under the supervision of the Vice-Rector for Scientific and Clinical Work (Organizational Structure of 03.10.2022 pr.40 of the Board of Directors).

For the period of entrance examinations, examination commissions for groups of educational programmes are created by the order of the Chairman of the Board-Rector. Persons entering the residency shall pass the entrance exam on the profile of the group of educational programmes.

The organisation of the educational process of the residency is carried out based on the EP, Working curriculum, academic calendar, timetable of academic classes.

According to the Working curriculum, the Department of Academic Affairs employees prepare the schedule of training sessions for the whole academic year.

The department annually prepares a plan of educational activities for the implementation of the EP, which includes the preparation of the Working curriculum, development or revision of syllabuses, forms and materials of final control, plans for the introduction of modern teaching technologies and assessment of residents' achievements.

KMU NJSC has a system of internal quality assurance in accordance with the requirements of the international standard ISO 9001:2015, Standards and Recommendations for Quality Assurance in the European Higher Education Area (ESG).

EP in Clinical Pharmacology, implemented at the Department of Clinical Pharmacology and Evidence-Based Medicine, is built in such a way as to provide a holistic systemic understanding of the processes of clinical activity and improving the skills of rational use of medicines in the field of drug circulation, based on the latest scientific advances not only in the field of the main speciality, but also in related areas.

According to the results of the questionnaire survey conducted by experts, 96.88% of teachers fully agree that ethics and subordination in relations between colleagues, teachers and management are observed in KMU NJSC; the remaining 3.13% completely disagree. 90.63% of respondents are completely satisfied with the organisation of work and workplace, 9.38% are partially satisfied with.

## **8.2 Academic leadership**

Academic leaders of the University are persons in the management and governance of structural units responsible for decision-making on academic issues: Chairman of the Board - Rector, vice-rectors, deans, heads of departments, heads of EPs, heads of structural subdivisions. Leadership qualities of the Rector and Vice-Rectors are characterised by high professionalism and qualifications, clear result orientation, flexibility and adaptability, initiative, high level of responsibility, ability to manage tasks, solve problems, ability to motivate employees to work effectively.

The management and administration of the university control and monitor the entire educational process, issue orders and normative-regulatory acts regulating the implementation of the educational programme at all its stages, organise external audit, ensure all types of state control of the university (post-licensing control, attestation, etc.), involve all stakeholders in the evaluation of the programme, create conditions for the organisation, planning and implementation of educational programmes.

Higher-education teaching personnel, clinical tutors carry out systematic control of learning achievements of students in current classes, during Independent work of residents with teachers and Independent work of residents.

Heads of departments, heads of EPs, higher-education teaching personnel and clinical tutors are directly responsible for the organisation and effectiveness of training, current performance control

and interim certification of disciplines, advice and take examinations on the profile of the academic discipline in accordance with the academic calendar, syllabus and schedule of examinations.

The Office-Registrar records the academic achievements of residents, ensures the organisation of all types of knowledge control and calculation of academic rating of students.

Vice-rector for scientific and clinical work controls the process of training of postgraduate education at the University in accordance with the State Standards of Education, supervises the preparation of schedules of classes, examinations.

Analyses of the performance indicators of the higher-education teaching personnel are conducted by the head of the department and discussed at the departmental meeting, reviewed at the meeting of the Senate of the School of Residency and Professional Development and the meeting of the University Senate. On the basis of the annual rating assessment of the department's activity there is a positive dynamics: in 2019-2020 the fulfilment of key indicators of the Department of Clinical Pharmacology and Evidence-Based Medicine was 71%, in 2020-2021 - 73%, in 2020 - 2021 - 82%.

In response to the question "Do the heads of the organisation listen to your opinion on issues related to educational process, research and development, clinical work?" 84.4% of teachers answered that systematically, 12.5% answered "sometimes", 3.13% did not answer

### **8.3 Budget for training and resource allocation**

The University provides for separate accounting of finances for educational programmes. The need for the School of Residency and Professional Development is reviewed at a Board meeting where the need for each line item and expense is discussed in detail. These expenditures are planned based on a request from the Dean of Schools. The development plan is posted on the state property register.

In 2019-2020 there were no students on EP "Clinical pharmacology", only in 2021 the resident entered at the expense of extra-budgetary funds on the basis of a tripartite agreement with Multidisciplinary hospital named after Professor H.J. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region.

Sources of funding are budgetary and extra-budgetary funding (state educational order, income from the provision of paid educational services, research work and other works not contrary to the legislation, international funds, organisations, grants, etc.).

Financing is carried out:

under the budget programme (006 "Training of specialists with higher, postgraduate education and provision of social support to students"), at the expense of the state educational grant, at the expense of own funds or Local Executive Bodies.

The university budget is formed at the expense of funds from the provision of the following services: educational, clinical, scientific contractual projects, catering and accommodation services on a fee basis in the university dormitories.

The cost of each educational service is formed taking into account the full coverage of costs, i.e. salaries, taxes, internship expenses, equipment of the educational process (reagents, medical equipment, equipment of the Centralised Educational Centre, equipment of the library fund), as well as the cost of maintenance of educational buildings (utilities, cleaning services, security services, etc.)

### **8.4 Administration and management**

The higher-education teaching personnel of KMU NJSC and the Department of Clinical Pharmacology and Evidence-based Medicine, in particular, contributes to the achievement of the mission and goals of the university, the qualification of higher-education teaching personnel corresponds to the level of their positions and ensures the implementation of educational programmes. The qualification of the higher-education teaching personnel, in the case of higher-education teaching personnel of clinical departments - by the qualification category of a specialist and the trust of colleagues. The principles of ethics and academic integrity in the university are implemented through the Code of Academic Integrity and Internal Regulations. Employees of the Department of Clinical Pharmacology and Evidence-based Medicine have awards, diplomas and certificates of appreciation,

there are no disciplinary penalties.

In KMU NJSC the assessment and monitoring of the EP is carried out in accordance with the Regulation on Academic Policy, the Regulation on the management of the educational programme. The monitoring system is a continuous multilevel process, which covers the assessment of all areas affecting the quality of the EP.

At the meetings of the department, schools discuss the methodological support of the EP, the implementation of the curriculum, the results of quality control of the educational process, the analysis of students' learning achievements. Monitoring of the EP at the HEI level is carried out through discussion of the programme context at School Councils, whose members are faculty members of departments, employers and students. Their opinions, comments and suggestions on the organisation of the educational process (class schedule, etc.), the catalogue of elective disciplines, the library fund, the results of control and other issues related directly to the learning process are taken into account and aimed at improving the EP.

In accordance with the normative indicators established by the Law of RK No. 319-III of 27.07.2007. "On Education", State Comprehensive Education Standard and Model curriculum, the Order of the Acting Minister of Health of the Republic of Kazakhstan from January 19, 2021 № ҚР ДСМ-6 "On approval of the methodology for the formation of the cost of training on education programmes in the field of health" annually determines the higher-education teaching personnel staff of the university faculty. The higher-education teaching personnel is formed on the basis of the needs for effective implementation of educational programmes, as well as on the basis of the total volume of teaching load. Every year the average teaching load of the higher-education teaching personnel realising the EP on residency is revised, which was 650 hours by the Decision of the Senate from the Protocol No. 7 from 28.04.2022.

Quality assurance management, development, implementation and coordination of the developed quality assurance policy is implemented by the Department of Strategic Development and Quality Management in accordance with the requirements of the international standard ISO 9001:2015, Standards and Recommendations for Quality Assurance in the European Higher Education Area (ESG). The quality policy is developed based on the strategic plan by the top management and approved by the decision of the Senate of the KMU NJSC University.

## **8.5 Requirements and regulations**

The organisation of educational process in the specialty of residency "Clinical pharmacology" is carried out according to the State obligatory standard of residency in the direction of training "Health care" (Order of the Minister of Health and Social Development No. 647 "On approval of state obligatory standards and standard professional training programmes for medical and pharmaceutical specialties" of July 31, 2015; as amended by the order of the Minister of Health of the Republic of Kazakhstan No. ҚР ДСМ-12/2020 of 21.02.2020) and standard programmes of the medical and pharmaceutical specialties.

The Department of Clinical Pharmacology and Evidence-based Medicine has three contracts with clinical bases: contract No. 342 of 01.09.2022 with Multidisciplinary hospital named after Professor H.J. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region, contract No. 347 of 01.09.2022 with Regional children's clinical hospital Municipal state enterprise of Health Department of Karaganda region, contract No. 353 of 01.09.2022 with Regional clinical hospital of Municipal state enterprise of Health Department of Karaganda region.

All stakeholders are involved in the definition and approval of the EP "Clinical Pharmacology". When developing the EP involved representatives of practical health care: doctor-clinical pharmacologist Multidisciplinary hospital named after Professor H.J. Makazhanov Municipal state enterprise on the right of economic management of Health Department of Karaganda region I.A. Kim, representative of another HEI - head of the Department of Clinical Pharmacology KMU NJSC, doctor-clinical pharmacologist of the highest category N.S. Akhmadyar (Protocol No. 6 of 24.01.2020). During the development of the Clinical Pharmacology EP, the members of the Professional Association



of Clinical Pharmacologists and Pharmacists were involved in the discussion. EP on Clinical Pharmacology was discussed at the meeting of the Department of Clinical Pharmacology and Evidence-based Medicine (Minutes No.7 of 25.02.2020), at the Council of the School of Residency and Professional Development (Minutes No.7 of 12.03.2020), agreed with the supervising vice-rector and approved by the Chairman of the Board - Rector on 09.04.2022.

EP of the residency is implemented in accordance with normative documents in the field of health care, which ensures the improvement of competence and achievement of the outcomes of training in Clinical Pharmacology speciality. Regular monitoring of the implementation of the EP in Clinical Pharmacology speciality contributes to the improvement of the quality of training in the residency programme.

**EEC conclusions on the criteria.** Compliant out of 15 standards (including 8 basic, 7 improvement standards): fully compliant - 15, partially compliant - , not compliant - 0

**Standard 8: fulfilled**

**Recommendations for improvement identified during the external visit:**

- 1)
- 2)

## **Standard 9: CONTINUOUS IMPROVEMENT**

### **Evidence of compliance:**

In KMU NJSC the monitoring of the implementation of the EP is carried out by the head of the EP, within the framework of intra-university control during the audit. Departments and the School of Residency and Professional Development at the final attestation are monitoring and controlling the achievement of final learning outcomes. Continuous control of the quality of knowledge realised in the form of written assignments, portfolio evaluation, as well as final attestation allows to evaluate the degree of achievement of the outcomes and to make changes.

The forms of control are revised annually, test questions and written assignments are updated by 30% taking into account new concepts of diagnostics and treatment. 2020-2021 interim certification of residents in the form of portfolio defence at the end of the academic year is implemented. At the beginning of each academic year the syllabuses are reviewed and changes are made to improve the EP: introduction of new teaching and assessment methods, updating of literature supply, thematic plan, etc. taking into account the updating of clinical protocols, international recommendations, needs of practical healthcare in the field of haematology.

The EP managers regularly question stakeholders (employers and residents) and the results of the questionnaires are taken into account when making changes and updates to the EP.

KMU NJSC strives to not only produce quality training of specialists and provide opportunities for retraining of personnel for health care based on new innovative technologies introduced in the process of training specialists, but also year after year to achieve the highest possible customer satisfaction.

The process of updating the educational programme at the University is based on prospective studies and analyses, taking into account the results of its own experience, the study of literature on medical education and the study of labour market needs.

Improving the quality of educational services, their practice-orientedness is ensured by active participation in the management of education of stakeholders (teaching staff, residents, clinical tutors, employers), as well as professional associations, which are involved in the discussion in the process of the EP development and distribution of resources required for its implementation. This is ensured through the participation of the university faculty in the development of Modal curriculum of disciplines through the participation of the staff of the Department of Clinical Pharmacology and Evidence-based Medicine headed by the Head of the Department Sh.S. Kalieva, who is the Chair of the Clinical Pharmacology EPC.

KMU NJSC has a Strategic Development Plan for the implementation of educational programmes. In order to improve the quality of training in residency, regular analyses of feedback results from stakeholders (students, faculty, employers, graduates, etc.) are conducted.

In the future, it is planned to create an experimental laboratory on pharmacology and submit a grant for the creation of the Kazakhstan platform of clinical pharmacokinetics to conduct clinical trials on healthy volunteers to improve the training of residents of Clinical Pharmacology EP.

***EEC conclusions on the criteria.*** Compliant from 1 standard (including 1 basic standard): fully - 1 , partially - , not compliant - 0.

***Standard 9: fulfilled***

***Recommendations for improvement identified during the external visit:***

- 1)
- 2)

## **CONCLUSION:**

The results of the conducted work on self-assessment of the Clinical Pharmacology EP with the analysis of educational, methodological, research, clinical activities and material and technical base of the university allow us to conclude about the positive dynamics of development of the university and the Department of Clinical Pharmacology and Evidence-Based Medicine. The quality of resident training, the existing high potential of teaching staff, the level of scientific research, information and material and technical support on the main indicators are sufficient to conduct educational, scientific and clinical activities on the EP of residency in Clinical Pharmacology speciality.

The mission of the educational programme "Clinical Pharmacology" is presented in the form of a goal in accordance with the mission and development strategy of KMU NJSC and consists in training highly qualified specialists with profound knowledge in the field of clinical pharmacology, capable of applying and developing advanced innovative technologies in medicine, science and practice, based on the principles of evidence-based medicine and meeting the needs of society in the high quality of medical services and treatment results.

The University has a highly qualified teaching staff, sufficient material resources to realise its mission, set tasks and educational goals.

The University has created and continuously improves the system of strategic management of the quality of education.

In its international activities, KMU NJSC declares itself as a research university and strives to take into account the general trends in the development of medical science and education, while preserving and multiplying its own experience and the best traditions of the domestic education system.

The main task of the University is to create the necessary conditions for obtaining postgraduate professional education, aimed at the formation, development and professional formation of personality based on national and universal values.

To train doctors-clinical pharmacologists at the Department of Clinical Pharmacology and Evidence-Based Medicine formed highly qualified human resources in the face of faculty members who have academic titles and degrees, a long work experience in the speciality, continuously improving professional qualifications. The department has a sufficient number of clinical bases with a comfortable clinical environment for training, clinics are multidisciplinary, providing highly qualified medical care to the population of Karaganda region. The resident participates in the process of drug circulation in the clinics, provides consultations to patients and doctors on the rational use of medicines, conducts clinical and pharmacological expertise. He is also actively involved in scientific projects with subsequent presentations at conferences and publications.

Thus, the presence of a clearly defined and realised mission of the specialty: "Clinical Pharmacology", the prevalence of strengths according to accreditation standards, the provision of sufficiently equipped clinical bases, the availability of highly qualified teachers, scientific support of the educational process and the desire for continuous improvement, creates the conditions for quality training and consistent transformation of residents to in-demand and competitive specialists - doctors-

clinical pharmacologists.

During the external evaluation of the educational programme it was found that out of **147 standards** (including 89 basic standards and 51 improvement standards) 140 accreditation standards, including 86 **basic** standards and 47 improvement standards demonstrate full compliance. Non-conformity of standards was not found. Compliance with the improvement standards indicates the compliance of the educational organisation with the international consensus in such areas as clinical pharmacology.

### **5. Recommendations for improving the educational programme \_ \_\_\_\_\_:**

1. It is recommended to ensure that staff and students are informed about the possibility of using the available infrastructure to maintain health (sanatorium)
2. Taking into account the planned increase in the number of resident trainees in the programme "Clinical Pharmacology" it is recommended to provide for the participation of a mentor in the educational process.
3. It is recommended that the list of external examiners should be expanded with rotating representatives from practice health services
4. Provide measures to attract foreign residents in the Clinical Pharmacology EP and planning of this process.
5. Expand the participation of residents in clinical trials
6. Utilise the capabilities of the molecular genetics laboratory
7. Provide for mastering the module on pharmacogenetic studies and personalised pharmacotherapy using leading foreign model centres.

### **6. Recommendation to the ECAQAQA Accreditation Council**

The EEC members established compliance of the educational programme of the residency in the specialty "\_Clinical Pharmacology" with the Standards of Accreditation and came to the unanimous opinion to recommend to the ECAQAQA Accreditation Council to accredit this programme for the period of 5 years.

<b>No.</b>	<b>Status as a member of the EEC</b>	<b>Full name</b>
1	Chairman	Khatimya Ilyasovna Kudabaeva
2	Foreign expert	Sergey Ryzhkin
3	Academic expert	Afrikyan Shushanik Gevorkovna
4	Academic expert	Saltanat Nurgozhaevna Urazova
5	Academic expert	Darya Muratovna Shabdarbayeva
6	Academic expert	Raygul Mukhanbetovna Ramazanova
7	Academic expert	Akmaral Kanashevna Zhumalina
8	Academic expert	Raihan Esenzhanovna Tuleutayeva
9	Academic expert	Zaure Alpanovna Baigozhina
10	Academic expert	Sholpan Khamzaevna Ramazanova
11	Academic expert	Bibikhan Abdalievna Yeralieva
12	Academic expert	Gulnara Akhmetkazyevna Isposunova
13	Academic expert	Asel Bidauletovna Doshakanova
14	Academic expert	Asem Kalelovna Dosanova
15	Employers' representative	Bayan Lashinovna Daniyarova
16	Expert - representative of doctoral students	Aknur Daurenkyzy Orazbay
17	Resident representative	Aydana Kurak
18	Supervisor of ECAQA	Makpal Aldibekovna Umarova

## 6. Рекомендация Аккредитационному совету ЕЦА

Члены ВЭК пришли к единогласному мнению рекомендовать Аккредитационному совету аккредитовать образовательную программу 7R01109 «Клиническая фармакология» НАО «Медицинский университет Караганды», соответствующую Стандартам аккредитации образовательных программ резидентуры медицинских организации образования на период 5 лет.

**Председатель Внешней экспертной комиссии**  
КУДАБАЕВА ХАТИМЯ ИЛЬЯСОВНА

**Зарубежный эксперт**  
РЫЖКИН СЕРГЕЙ АЛЕКСАНДРОВИЧ

**Зарубежный эксперт**  
АФРИКЯН ШУШАНИК ГЕВОРКОВНА

**Национальный академический эксперт**  
УРАЗОВА САЛТАНАТ НУРГОЖАЕВНА

**Национальный академический эксперт**  
ШАБДАРБАЕВА ДАРИЯ МУРАТОВНА

**Национальный академический эксперт**  
РАМАЗАНОВА РАЙГУЛЬ МУХАНБЕТОВНА

**Национальный академический эксперт**  
ЖУМАЛИНА АКМАРАЛ КАНАШЕВНА

**Национальный академический эксперт**  
ТУЛЕУТАЕВА РАЙХАН ЕСЕНЖАНОВНА

**Национальный академический эксперт**  
БАЙГОЖИНА ЗАУРЕ АЛПАНОВНА

**Национальный академический эксперт**  
РАМАЗАНОВА ШОЛПАН ХАМЗАЕВНА

**Национальный академический эксперт**  
ЕРАЛИЕВА БИБИХАН АБДАЛИЕВНА

**Национальный академический эксперт**  
ИСПОСУНОВА ГУЛЬНАРА АХМЕТКАЗЫЕВНА

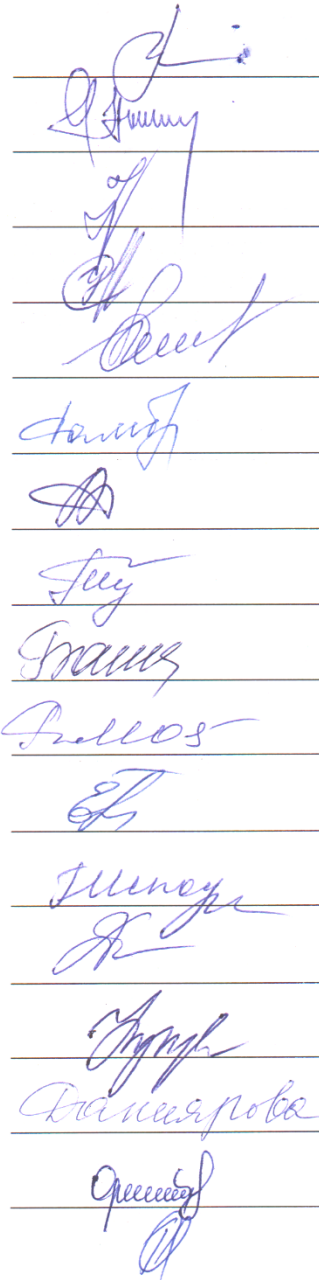
**Национальный академический эксперт**  
ДОШАКАНОВА АСЕЛЬ БАЙДАУЛЕТОВНА

**Национальный академический эксперт**  
ДОСАНОВА АСЕМ КАЛЕЛОВНА

**Эксперт- представитель практического здравоохранения**  
ДАНИЯРОВА БАЯН ЛАШИНОВНА

**Эксперт – представитель докторантов**  
ОРАЗБАЙ АҚНҰР ДӘУРЕНҚЫЗЫ

**Эксперт – представитель резидентов**  
ҚҰРАҚ АЙДАНА ЖАНАЙДАРОВНА



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

Standard	Evaluation criteria	The number of standards	BS*/IS	Evaluation		
				Completely compliant	Partially compliant	Not compliant
1.	MISSION AND OUTCOMES	17	10/7	10/7		
2.	EDUCATIONAL PROGRAMME	30	22/8	21/8	1/0	
3.	RESIDENT EVALUATION	11	7/4	7/3	0/1	
4.	RESIDENTS	30	18/12	17/12	1/0	
5.	ACADEMIC STAFF/FACULTY	7	5/2	5/2		
6.	EDUCATIONAL RESOURCES	21	10/11	10/7	0/4	
7.	EDUCATIONAL PROGRAMME EVALUATION	15	10/5	10/5		
8.	MANAGEMENT AND ADMINISTRATION	15	8/7	8/7		
9.	CONTINUOUS IMPROVEMENT	1	1/0	1		
		147	91/56	147		

**List of documents studied by the EEC members within the framework of external evaluation of the residency educational programme**

<b>No.</b>	<b>Name of a document</b>	<b>Quantity</b>
1.	<p>- Adult haematology EP residency was discussed at the meeting of the School of Residency and Professional Development Board (Minutes No. 7 of 12.07.2020), agreed with the Vice-Rector for Clinical Work on 09.04.2020 and approved by the Chairman of the Board-Rector of the KMU NJSC.</p> <p>- Adult haematology EP (with updates, 2022), approved at the meeting of COCSH (Minutes No.3 of 05.07.22), discussed at the meeting of the School of Residency and Professional Development Board (Minutes No.11 of 07.07.22) and approved by the decision of the Board of KMU NJSC (Minutes No.16, of 13.07.22)</p>	2
2.	<p>-Working curriculum for 2022 - 2024 academic years of the residency specialty 7R09105 "Adult haematology" (No 101/3205 of 22.06.2022)</p> <p>-Working curriculum for 2023 - 2025 academic years of the residency specialty 7R09105 "Adult haematology" (No 1/946 of 20.02.2023)</p>	2
3.	Catalogue of Elective Disciplines for the educational programme 7R01105 "Hematology Adult", 2022, reviewed and approved at the meeting of the Board of the School of Residency and Professional Development, Minutes No.4, dated 10.11.22	1
4.	- Syllabus for the module "Haematology in hospital", discussed and reviewed at the meeting of the Department of Internal Medicine, Minutes No. 1 of 31.08.22, approved by the head of the EP on 31.08.22	1
5.	The list of clinical skills taught by the Department of Internal Medicine in Centre for Simulation and Educational Technologies for students of the 1st year of the educational programme 7R09105 "Haematology adult" on the discipline "Intensive therapy in haematology (module "Haematology in hospital) in the academic year 2022 - 2023, approved by the Head of the Department of Internal Medicine E.M. Laryushina, 05.09.22	1
6.	<p>Joint Activity Agreement of KMU NJSC with Haematology Centre LLP (No. 391 of 01.09.22),</p> <p>- Addendum No.1 dated 07.02.2023</p>	2
7.	Methodological recommendations with the use of active, innovative teaching methods of training on the topic: Interdisciplinary patient: diagnosis and treatment of bleeding" (intellectual quest game) for residents in 3 specialities: Gastroenterology adult, child (discipline "Hepatology, adult", module Hepatology), Haematology adult (discipline "Consultative haematology", module Haematology outpatient and polyclinic), Pulmonology adult, child (discipline Intensive therapy in pulmonology, module Pulmonology in hospital, adult)	1
8.	<p>- Portfolio of Maksim Igorevich Selivanov, 1st year resident of the speciality "Adult haematology".</p> <p>- Portfolio of the 2nd year resident of the speciality "Adult haematology" Kakhanova Maria Alexandrovna</p>	5

	<ul style="list-style-type: none"> <li>- Article: M.I. Selivanov, et al. Kikuchi-Fujimoto disease: the first clinical observation of a rare case in the Republic of Kazakhstan / Oncology and Radiology of Kazakhstan, No1 (67) 2023.</li> <li>- Mariya Kakhanova and al. IGHV REPERTOIRE FEATURES IN KAZAKHSTAN CHRONIC LYMPHOCYTIC LEUKEMIA PATIENTS/ HemaSphere, 2022;6:(S3):pages.</li> <li>-Diploma of 1 degree Selivanova M.I. "Best Research Article 2023" nomination "Medical Sciences"</li> </ul>	
9.	- Individual work plan of the resident M.A. Kakhanova 1 year of training, group 8-002, for 2021-2022 academic year, approved at the meeting of the Department of Internal Medicine, protocol number 1 of 01.09.2021	1
10.	- Report of resident N.E. Antonova for 2021-2022 academic year, discussed and approved at the meeting of the Department of Internal Medicine, Minutes No.10A, dated 29.06.22	1
11.	Individual work plan of the teacher: Professor L.G. Turgunova for 2022-2023, approved at the meeting of the Department of Internal Medicine, Minutes No. 2 of 05.09.2022	1
12.	<p>Materials on academic mobility of residents, faculty members and the programme "Visiting Foreign Professor2:</p> <ul style="list-style-type: none"> <li>- Distance Learning Programme "Controversy of hemostasiology" by Dr. Vavilova T.V., Professor of the V.A. Almazov National Medical Research Centre (St. Petersburg, Russia) for residents studying in the educational programme "7R01105- Haematology, adult" and "7R01104- Gastroenterology, adult, paediatric" for groups of 1st and 2nd year under the Visiting Professor programme for the period from 19 September to 23 September 2022</li> <li>- Programme of classes on the discipline "Strategic planning and quality assurance in medical university" of Professor of Internal Medicine Department, Doctor of Medical Sciences Lyudmila Gennadyevna Turgunova for teachers of Tajik State Medical University in the period from 19 to 21 December 2022.</li> <li>- Invitation letter from the Rector of the Tajik State Medical University, Dr.M.Sc., M.K. Gulzoda for participation in the academic mobility of professors L.G. Turgunova and E.M. Laryushina, dated 14.12.2022.</li> <li>- Gratitude letter from the Rector of I.I. Mechnikov North-Western State Medical University for academic mobility of residents of the Department of Haematology and Transfusiology of the North-Western State Medical University from 02.03-14.03.2023 within the framework of the agreement on inter-university cooperation in the field of academic mobility of students</li> </ul>	4
13.	<p>Acts of implementation of innovative teaching methods in the educational process:</p> <ul style="list-style-type: none"> <li>- name of the proposal: "Quest Game", approved by the Vice-Rector for Academic Work of KMU NJSC Ricklefs V.P., 23.01.23</li> <li>- name of the proposal: "Multidisciplinary Counselling", approved by the Vice-Rector for Academic Affairs of KMU NJSC Ricklefs V.P., 13.10.22</li> <li>- name of the proposal: "Young Internist School", approved by the Vice-Rector for Academic Affairs of KMU NJSC, V.P. Ricklefs, 10.02.22</li> </ul>	4

	- Proposal title: "Training based on the prevention of medical errors (TAME)", approved by the Vice-Rector for Academic Affairs of the KMU NJSC V.P. Ricklefs, 13.10.22	
14.	Acts of implementation of the results of the research work in the educational process: - name of the proposal: "Algorithm of preventive counselling: individual in-depth preventive counselling", approved by the vice-rector for academic work of KMU NJSC Ricklefs V.P., 29.09.22 - name of the proposal: "Individual cardiovascular disease risk cards", approved by the Vice-Rector for Academic Affairs of KMU NJSC V.P. Ricklefs, 04.05.22 - name of the proposal: "Preventive model of cardiovascular disease risk factor management in primary patient counselling", approved by the Vice-Rector for Academic Affairs of KMU NJSC, 28.04.23	3
15.	Analyses of the questionnaire: - Residents' satisfaction with the quality of the educational process, considered at the meeting of the Commission for Quality Assurance at the School of Residency and Professional Development, protocol No. 3, dated 06.04.23, signed by the Chairperson A.M. Zhusupova. - satisfaction of employers of graduates of 2021-2022 academic years, considered at the meeting of the Commission on Quality Assurance at the School of Residency and Professional Development, Minutes No.2, dated 02.02.23, signed by the Chairperson A.M. Zhusupova	2
16.	Materials of the final control: - Specification of test tasks of the 2nd stage of the final control for residents of the 2nd year of the speciality 7R01105 "Haematology adult", approved at the meeting of the Department of Internal Medicine, protocol No. 2 of 05.09.22 - Clinical task for the final control in the form of a written assignment on the Session platform on the module "Haematology in the hospital" for residents of the 1st year of training specialty 7R01105 - Haematology adult; materials of the final control approved at the meeting of the Department of Internal Medicine, Minutes No. 2 of 05.09.22 - Test tasks for the final control on the discipline "Highly specialised haematological care" for residents of the 2nd year of training in the specialty 7R01105 "Adult haematology", approved at the meeting of the Department of Internal Medicine, protocol No. 2 of 05.09.22 - Review (external) on clinical tasks for the final control on the module "Haematology in hospital" for residents of the 1st year of training on specialty 7R01105 "Adult haematology" for the academic year 2022-2023 from the Director of LLP "Haematology Centre" doctor haematologist of the highest category I.G. Balandinskaya - Review (internal) on the materials of the final control on the module "Haematology in hospital" for the residents of the 1st year on specialty 7R01105 Haematology Professor of the Department of Internal Medicine KMU NJSC, Candidate of Medical Sciences A.R. Alina, 31.08.22 - Extract from the minutes of the meeting of the Department of Internal Medicine, Minutes No. 2 of 05.09.2022. On Discussion of forms and materials of the final control of residents on specialities of residency.	7



	- Extract from the minutes of the meeting of the Board of the School of Residency and Professional Development, Minutes No.2 of 08.09.2022. Discussion of the results of summer interim and final certification of the residency graduates.	
17.	"Peer Review methodology in ensuring the quality of higher medical education". Methodological Recommendations/ MKU, Karaganda, 2022, page 77. V.P. Ricklefs, E.M. Laryushina, Sh.S. Kalieva, L.G. Turgunova, G.M. Muldaeva, D.N. Sheryazdanova, Approved at the meeting of the Senate of KMU NJSC of 29.12.22, Minutes No. 5	1