REPORT
OF THE EXTERNAL EXPERT COMMISSIONS ON THE EVALUATION OF
THE EDUCATIONAL PROGRAMME OF RESIDENCY IN THE SPECIALTY
7R09142 – “CLINICAL PHARMACOLOGY”
OF CORPORATE FUND "UNIVERSITY MEDICAL CENTRE" FOR
COMPLIANCE WITH THE ACCREDITATION STANDARDS FOR
PROGRAMMES OF POSTGRADUATE EDUCATION (RESIDENCY
SPECIALTY) MEDICAL ORGANIZATIONS OF EDUCATION

period of external expert evaluation: December 7-10, 2020

1. Composition of the External Expert Commission
In accordance with ECAQA Order No. 21 dated November 16, 2020, an External Expert Commission was formed to conduct accreditation of educational programmes for residency specialties of the Corporate Foundation "University Medical Centre" from December 7 to December 10, 2020 (CF "UMC") in the following composition:

Chairman of the External Expert Commission
MORENKO MARINA ALEKSEEVNA,
Doctor of Medical Sciences, Head of the Department of Children's Diseases
JSC "Astana Medical University"
Chief freelance pediatric immunologist of the Public Health Department of Nur-Sultan, a member of the European Academy of Allergists and Clinical Immunologists, a Member of the European Respiratory Society

Foreign expert
IVANA OBORNÁ,
Doctor of Medical Sciences, Professor, Assessor for the recognition of accreditation bodies of the World Federation of Medical Education (https://wfme.org/about-wfme/people/ivana-oborna/), expert of the National Bureau of Accreditation for Higher Education of the Czech Republic, Deputy Chairman of the Fulbright Czech-American government organization, Vice-Rector for International Relations at Palacký University, obstetrician-gynaecologist at the Faculty Clinic of Olomouc
Foreign expert
ZINCHENKO RENA ABULFAZOVNA,
Doctor of Medical Sciences, Professor, Deputy Director for Scientific and Clinical Work of the Federal State Budgetary Scientific Institution "Medical Genetic Research Centre named after Academician N.P. Bochkova" (MGRC), Head of the Laboratory of Genetic Epidemiology, Scientific Secretary of the Dissertation Council D 001.016.01 for the defence of candidate and doctoral dissertations in the specialty "Genetics"(medical and biological sciences) on the basis of the Federal State Budgetary Scientific Institution "MGRC ".

National academic expert
KURMANOVA ALMAGUL MEDEUBAEVNA,
Doctor of Medical Sciences, Professor of the Department of Clinical Specialties, RSE on REM KazNU named after Al-Farabi, Leading Researcher of JSC "Scientific Centre for Obstetrics, Genecology and Perinatology", Almaty

National academic expert
ESENKULOVA SAULE ASKEROVNA
Doctor of Medical Sciences, Associate Professor of the Department NJSC "Kazakh National Medical University named after S.D. Asfendiyarov"
Member of the Association of Oncologists of the Republic of Kazakhstan

National academic expert
RAMAZANOVA SHOLPAN KHAMZAEVNA.
Candidate of Medical Sciences, Associate Professor Department of General Medical Practice No. 2
NJSC "Kazakh National Medical University named after S.D. Asfendiyarov ".
National academic expert
KALIEVA SHOLPAN SABATAEVNA, 
Candidate of Medical Sciences, Associate Professor, Head of the Department of Clinical Pharmacology and Evidence-Based Medicine 
NJSC "Medical University of Karaganda" 
Member of the professional association of clinical pharmacologists and pharmacists of the Republic of Kazakhstan 
Member of the International Pharmacoeconomic Society ISPOR 
Deputy Chairman of the Formulary Commission of the Healthcare Department of the Karaganda region

National academic expert
SADIEVA ZHANAR ZAMANKHANOVNA, 
anasthesiologist-resuscitator, head of the postgraduate education department 
JSC "South Kazakhstan Medical Academy"

National academic expert
DZHAMANTAYEVA BOTAAGOZ DAUKIMOVA, 
Candidate of Medical Sciences, and about. Head of the Department of Neurosurgery and Neurology of JSC "Scientific Centre of Neurosurgery"

National academic expert
BEISEBAYEY EL DAR NURLANOVICH, 
PhD, Assistant at the Department of Oncology, Mammalogy and Radiology 
NEI "Kazakhstan-Russian Medical University"
The work of the EEC was carried out in accordance with the Regulation on the EEC (Order of the Director General of ECAQA No. 4 dated February 13, 2017).

The EEC report contains an assessment of the educational programme of residency in the specialty "Clinical pharmacology" CF "UMC" for compliance with Accreditation Standards programmes of postgraduate education (specialty residency) of medical educational institutions of ECAQA, recommendations of the EEC on the further improvement of educational activities of CF "UMC" in the field of postgraduate education.

2. General part of the final report of the EEC

2.1 Presentation Corporate Foundation "University Medical Centre" and educational residency programme in the specialty "Clinical pharmacology".

The corporate fund "University Medical Centre" (hereinafter - CF "UMC") was created in accordance with the decision of the Board of Trustees of the Autonomous Organization of Education "Nazarbayev University" (hereinafter - Nazarbayev University) dated September 20, 2015 No. 20 on the basis of subsidiaries of the joint stock company "National medical holding ".

The purpose of the UMC CF is to provide safe, effective and high-quality medical care, the development, implementation and dissemination of modern technologies in the field of medical science, education and practice.

Today CF "UMC" unites four leading medical centres, including the National Scientific Centre for Motherhood and Childhood (hereinafter - NRCMCH), the National Centre for Children's Rehabilitation (hereinafter - the NCDR), the Republican Diagnostic Centre (hereinafter - the RDC) and a branch in Kyzylorda. Three centres of CF "UMC" (NRCMCH, RDC, NCRC) have passed the international accreditation of Joint Commission International, which is a guarantee of the safety of the services provided and confirmation of the provision of medical services in accordance with the level of international standards.

In 2019 year by the decree of the Government of the Republic of Kazakhstan, the National Centre of Oncology and Transplantology was removed from the CF "UMC" and transferred to the jurisdiction of the Ministry of Health of the Republic of Kazakhstan. Also, by the end of this year, the National Scientific Cardiac Surgery Centre will be transferred to the structure of the UMC CF.

Activities as part of the integrated academic health care system of Nazarbayev University ensures the uniqueness of the educational services offered. As a part of the integrated academic health care system, Nazarbayev University, CF "UMC" attracts foreign specialists’ "mentors" and organizes master classes with the involvement of international experts on the basis of its centres to create a competitive generation of medical personnel, develop and adapt modern protocols for diagnosis and treatment of diseases as well as improving the quality of medical care.

CF "UMC" pays special attention to the issue of compliance with the requirements of international quality and safety standards of medical care JCI, including through the use of methodologies for continuous quality improvement, advanced training of medical personnel in leading medical organizations of the world, the introduction of a patient-oriented system of medical care, in including on the basis of recommendations of mentors-partners from Switzerland in the field of medical science.
of hospital services.

In accordance with the UMC CF Charter, approved by the decision of the Governing Council of Nazarbayev University dated October 16, 2015 No. 16.10.15 (with amendments and additions approved by the decision of the Governing Council of Nazarbayev University dated February 6, 2018 No. 06.02.18), one of the main types of activity of CF "UMC" is educational.

The organizational, functional and staffing structures of the organization are built taking into account the mission, goals, objectives and policy in the field of quality assurance.

The organizational structure of CF "UMC" is developed on the basis of strategic directions, approved by the governing body CF "UMC", vertical subordination of the relevant structural divisions to the Deputy Chairmen of the Management Board, Medical and Executive Directors in supervised areas. The basis for building the organizational system of the centres of the CF "UMC" are the main processes-blocks: medical, strategic, nursing and service and economic.

The Department of Science and Education (hereinafter referred to as the Department) is a structural subdivision of the CF "UMC".

Training in residency at the CF "UMC" has been carried out since 2016. According to article 8 of the Law "On the status of Nazarbayev University", "Nazarbayev Intellectual Schools" and "Nazarbayev Fund" Nazarbayev University, Intellectual Schools, their organizations carry out educational activities without a license, without state certification.

Residency programmes are implemented in accordance with the Rules for organizing the educational process in the residency of the CF "UMC" approved by the decision of the Board of the CF "UMC" dated February 15, 2018 No. 3.

Residency programmes are implemented in 11 clinical specialties:
1) 6R111500 Neurology, incl. children's;
2) 6R114400 Obstetrics and gynecology, incl. pediatric;
3) 6R112600 Anesthesiology and resuscitation, incl. pediatric;
4) 6R114300 Neonatology;
5) 6R111900 Radiation diagnostics;
6) 6R114200 Pediatric;
7) 6R113300 Pediatric surgery;
8) 6R115000 Pediatric Oncology and Hematology
9) 6R114500 Medical genetics;
10) 6R113600 Clinical pharmacology;
11) 6R111000 Nephrology, incl. pediatric;

The total number of students enrolled in the residency programme of the UMC CF in 2019-2020 is 66 residents. In 2019 and 2020, 51 and 32 residents were released, respectively. In the specialty "Clinical Pharmacology", a new admission is planned for the next academic year.

Total number of teachers involved in the educational process of residency and additional training is 206 people, including doctors of medical sciences -27, candidates of medical sciences – 60. Number of faculty programme residency Clinical pharmacology – 3, including 1 doctor of medical Sciences, 1 candidate of medical Sciences, without a degree – 1.

2.2 Information on previous accreditation

Accreditation of the educational residency programme in the specialty "Clinical pharmacology" CF "UMC" has not been held to date.

2.3 Analysis of the report on self-assessment of the educational programme of residency in the specialty "Clinical pharmacology" CF "UMC"

Preparation for specialized accreditation of the Corporate Fund "University Medical Centre" was carried out on the basis of the order dated July 20, 2020 No. 18-n / о "On the approval of the composition of the working group for the preparation for specialized accreditation of the corporate fund" University Medical Centre ".

4
Self-assessment report of the educational programme "Clinical pharmacology" presented on 133 pages of the main text, of which 80 pages of annexes and electronic versions of documents by reference to google disk.

The report is characterized by completeness of answers to all 9 accreditation standards, structuredness taking into account the recommendations of the ECAQA Self-Assessment Guidelines, as well as internal consistency of information. The report is accompanied by an accompanying letter signed by acting medical director Khairulina B.E., confirming the accuracy of the information and data contained in the report.

The report contains information about the representative of the CF "UMC" responsible for the self-assessment of educational programmes Syzdykova Alma Alibekovna, Director of the Department of Science and Education.

A working group of 22 people headed by the chairman E.A. Taigulov on the preparation of the self-assessment report, a certain amount of work was done: the content of the accredited educational programme, the conditions for its implementation, staffing, educational resources were analysed, the necessary information was collected in accordance with Accreditation standards for postgraduate education programmes (residency specialties) of medical educational organizations (hereinafter referred to as accreditation standards); a thorough analysis, updating and addition of methodological and educational materials was carried out, their content is reflected in the report. The content of the Self-Assessment Report is structured in accordance with the ECAQA Accreditation Standards and includes a description of strengths, areas for improvement for each of the 9 standards.

All standards show actual practice CF "UMC" for the preparation of residents in the specialty "Clinical pharmacology" planning admission students in 2020-2021, reasoned data, examples of the implementation of the tasks of the educational programme, national and international events, methodological support, confirming compliance with the requirements of accreditation standards.

Self-assessment report description fairly complete and updated software the number of residents, teachers, administration, information on the selection and admission, the results of training, the results of the assessment of knowledge and skills, the material and technical base of the university and clinical bases, contractual obligations with partners (universities, associations, bases), financial information, development plans and improvement, etc.

Conclusion on each of the 8 accreditation standards includes a description of the strengths and areas for improvement identified in the course of introspection and development prospects for the specialty. The analysis of compliance is given only for 8 standards, since new educational residency programmes are presented for the examination and the process of continuous improvement (standard 9) will be analysed and evaluated at the stage of post-accreditation monitoring when the accreditation council decides on the full accreditation of the educational programme.

Thus, the self-assessment report of the accredited educational residency programme of UMC CF contains objective, detailed, structured information on all types of activities in accordance with the ECAQA accreditation standards, and UMC CF made appropriate corrections in the report at the stage of expert evaluation.

3. Description of external expert evaluation

External expert work on the evaluation of the educational programme residency in the specialty "Clinical pharmacology" was organized in accordance with the Guidelines for conducting an external assessment of educational organizations and educational programmes of ECAQA (approved by order of the Director General of the NU "Eurasian Centre for Accreditation and Quality Assurance in Education and Healthcare" No. 5 dated February 17, 2017) and according to the programme and schedule approved on November 16, 2020 Director General of ECAQA Sarsenbaeva S.S. and agreed with Medical Director of the CF "University Medical Centre" B.E. Khairulin.

To obtain objective information on the expert assessment of the accredited educational programme, the EEC members used the following methods: interviews with management and administrative staff, interviews with residents, observation, study of the website, interviewing employees of various structural units, teachers, questioning teachers and residents, review of
resources in the context of the implementation of accreditation standards, the study of regulatory and educational documents both before the visit to the university and during the visit.

The sequence of the visit during December 7-10, 2020 is detailed in the Visit Programme, which is located in the documentation of the accreditation centre and in the annex to this report.

Interviews were held with 22 teachers (in three groups), residents (43) and employers (representatives of practical health care).

Interviews with teachers, as providers of the residency programme, showed that there are both successes and problems in the management of the educational programme, since the main developer of programmes and teaching and methodological documentation is the Department of Education and Science, and teachers are more involved in the preparation of control and measuring instruments. In order to verify the data of the standard, 5 external experts obtained an opinion on personnel policy and approaches to the development of pedagogical competence of teachers, motivation to work with residents, and the implementation of supervision. The experts found that teachers initiate research topics for residents, stimulate the need for additional training and independent work with literature and medical documentation.

In order to validate the performance of the self-assessment report data and obtain evidence of the quality of the programmes, interviews were conducted with 44 residents on the ZOOM platform. Experts asked questions about satisfaction with training at UMC CF, sufficient time to supervise patients, work in “Damumed” with medical documentation, satisfaction with teaching methods and qualifications of teachers, social and moral support for residents who need it, participation in “Journal Clubs”, accessibility resources of international databases of professional literature. In general, the residents are satisfied with the training, assessment methods, and purposefully entered this organization, since they believe that the CF ”UMC” has good educational resources, image and international connections, at the same time, residents would like more independence in managing patients,

Residents showed their commitment to the organization of education, were active in answering questions from external experts, demonstrated their judgments on the organization of training, assessment of their skills, advisory support, opportunities to participate in research and development, funding, demonstrated their English language skills when answering questions from a foreign expert Ivana Oborna. The experts studied the documents of residents (portfolio, results of assessment of residents-checklists, results of a survey of residents).

Interviews with 12 employers on all the educational programmes of residency of the UMC CF announced for accreditation were conducted online and included such questions as: knowledge of the university mission, participation in the development of the mission and proposals in the strategic plan, participation in the advisory bodies of the “UMC” CF, 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 the formation of clinical thinking, about the problems of interaction with departments and universities in general, employment of residency graduates, etc. Employers are part of Educational and methodological council.

A review of resources showed that the clinical base “National Research Centre for Motherhood and Childhood “Available for review at the time of the external visit, corresponds to the goals and objectives of the corresponding educational programmes in the specialties -" Pediatric "," Neonatology", "Nephrology, including pediatric", "Pediatric surgery", Clinical pharmacology, etc., since it has 450 beds, a sufficient number of thematic patients, modern equipment and demonstrates accessibility to students, employees simultaneously fulfil the roles of teachers and curators (mentors), provide quality training in compliance with ethics and deontology. Before starting the corresponding discipline of the educational programme, the resident receives a syllabus from the teacher and knows what skills he must acquire and develop during the training.

The experts examined the documentation on the educational programme "Clinical pharmacology" at the link http://umc.org.kz/educational-methodical-documentation/, which confirmed the compliance with accreditation standards, including teacher documentation.
Then a meeting of the EEC members was held on the results of the external evaluation. A final discussion of the results of external assessment, study of documents, results of interviews, interviews, questionnaires was held. The members of the EEC began to design the final report of the EEC.

A meeting of EEC members was held. EEC members made generalizations of the results of the external evaluation. The experts individually completed the "Quality profile and criteria for external evaluation of the educational residency programme in the specialty "Clinical pharmacology" for compliance with the ECAQA Accreditation Standards". No comments were made by the EEC members. Recommendations for improving the postgraduate education sector implementing the accredited educational programme were discussed. A draft report with recommendations was prepared.

The Chairman of the EEC Morenko Marina Alekseevna held a final open vote on the recommendations for the CF "UMC" and a final vote on the recommendations for the ECAQA Accreditation Council. Then the chairman of the EEC for the management and employees of the educational organization announced recommendations based on the results of an external assessment in the framework of accreditation of educational programmes for residency specialties.

**Results of the survey.**

The ECAQA observer from December 7 to 10, 2020 conducted an online survey of residents and teachers of the accredited educational programme of the CF "UMC" on the resource [https://webanketa.com/](https://webanketa.com/).

**Residents survey results:**

The total number of residents who answered - 89. Out of the total number of respondents, residents of the 2nd year of study prevailed (91%), residents of the 1st year of study were 9%, respectively. Will recommend to study in this educational organization to their acquaintances, friends, relatives - 66% fully agree, partially - 25%.

70% of those surveyed strongly agree and 22% partially agree that programme managers and teaching staff are aware of their learning problems. According to 76% of residents, programme managers and teachers constantly involve them in the work of advisory bodies, 8% answered that they do not, and 8% do not know anything about it. 66% of residents are completely satisfied and 22% are partially satisfied with the conditions and equipment of classrooms, classrooms of this educational organization, while 3% of residents are completely dissatisfied, 6% are partially dissatisfied, and 2% doubt the answer to this question. In the opinion of 61% (completely agreeing) and 8% (partially agreeing) of the respondents, this educational organization has created conditions for recreation and meals for residents (rest rooms, benches / gazebos on the territory, a canteen) in between classes, but 22% of students partially disagree with this statement. 82% of residents fully agree and 10% partially agree that office equipment is available to them in classrooms and practice bases. Teachers provide residents with methodological and didactic materials, additional literature to prepare for classes: 67% fully agree, partially 19%.

88% of respondents are fully satisfied, and 9% are partially satisfied with the access to participation of students in research work. 64% of students are completely satisfied with the library fund and resources, and 28% are partially satisfied. 76% of residents are fully satisfied with the teaching methods, and 16% are partially satisfied. There is enough time for practical training (supervision of patients, etc.): 87% fully agree, 10% partially. 81% of the respondents are fully satisfied with the training schedule, and 15% are partially satisfied. 87% of the respondents were completely satisfied with the methods of assessing their knowledge and skills, and partly - 10%. According to 65% of residents, teachers regularly use active and interactive teaching methods in the classroom, and 18% of students believe that sometimes. Among the respondents, 72% expressed the opinion that that teachers constantly provide feedback after the end of classes, 15% answered that sometimes. 82% are completely satisfied with the fact that they study in this educational organization...
organization, partially - 10%, disappointed - 6% of respondents, while 2% of residents did not give an exact answer.

89% of the respondents are sure that this educational organization allows them to improve or acquire the necessary knowledge and skills in the chosen specialty. 60% of residents rate the organization of clinical training excellent, 25% - good, 10% - satisfactory. The majority of residents (81%) fully agree that a teacher (mentor, curator) of this educational organization is an example for them as a professional doctor, a person, while 16% answered that not all teachers of this organization are such. 88% of the respondents are completely satisfied with the number of patients for supervision or assistance during operations. Most of the respondents (78%) answered that they are currently engaged in research work, and 10% plan to start.

**Results of the survey of teachers of residency programmes:**

The total number of teachers on the list is 79. The total number of respondents is 50, including those with up to 5 years of experience - 28%, up to 10 years - 22%, over 10 years - 50%. According to the profile of the specialty: therapeutic - 4%, pediatric - 36%, surgical - 12%, obstetrics and gynecology - 34%, other - 14%.

42% are completely satisfied with the organization of the educational process, partially - 50%. Fully agree that the university respects ethics and subordination in relations between colleagues, teachers, management, 74%, partially - 26%. 50% of respondents are completely satisfied with the organization of work and workplace, partially - 44%. 48% of respondents fully agree that there is an opportunity for career growth and development of the competence of teachers in the organization, 42% partially.

Fully agree that in this educational organization, teachers have the opportunity to engage in scientific work and publish the results of research, 44% of teachers, partially agree - 42%. Fully agree that they are satisfied with the salary, 16% of respondents, partially agree - 34%, no answer - 12%, more yes than no - 26%, more no than yes - 12%. 48% of respondents are fully satisfied with the work of the personnel department (HR), partially - 42%.

Among teachers, 30% studied at professional development courses (programmes) less than one year ago, 28% of teachers - during this year, and 36% - more than three years ago. The microclimate in the team of the department / department / department / department satisfies 66% of teachers, does not satisfy - 12%, quite satisfied - 10%. Slightly more than half of the respondents (54%) fully agree that they can be realized as professionals in this organization, and 44% agree in part. According to 44% of teachers, students of this educational organization have a high level of knowledge and practical skills after completing the training programme, while 44% partially agree with this statement. 30% of respondents believe that applications for the purchase of methodological and didactic materials, office equipment,

When asked whether the UMC CF supports the teacher in participating in international and national events, 18% did not answer, 14% did not contact the management about this, 20% find sponsors, 32% answered that the organization does not pay any expenses, and 12% noted that they are supported by the payment of travel, travel expenses, registration fees, 4% - by payment only of travel. The majority of respondents (82%) fully agree, and 14% partially agree that residents have free access to patients and clinic resources.

22% are aware of the implementation of social programmes to support teachers, 52% do not know, and 12% of respondents doubt their existence.

Fully agree that this survey will be useful for developing recommendations for improving the key areas of activity of this organization, 56% of respondents, partially agree with this, 24%, and find it difficult to answer 16%.

The results of the questionnaire are presented in the appendix and, in general, demonstrate the effective management of educational programmes, the positive aspects of training on residency programmes, at the same time, identify areas for improvement (social support programmes for teachers, the availability of leadership and administration for teachers and residents, pedagogical competencies and professional development of teachers).
Conclusion from the external evaluation:

The members of the EEC carefully studied and evaluated the main indicators of the accredited educational programme. The information obtained by external experts during the study of the self-assessment report, the preparation of a written review with recommendations for improvement, the implementation of the activities of the visit programme to the UMC CF from 7 to 10.12.2020 is analysed. All information associated with the data report a self-assessment validation information for each criterion standards of accreditation and verification of indicators of the Annex to the report on self-assessment, which allowed to verify the authenticity CF "UMC" information and supporting documents for compliance with the accreditation Standards ECAQA.

In the report on the self-assessment of the educational residency programme in the specialty "Clinical pharmacology" CF "UMC" described his real educational practice in postgraduate education. Before visiting the organization by accessing google disk (https://drive.google.com/drive/folders/1FxOheU2F2_zbWaoYqbxigmzvgM3rT8Oe?usp=sharing_eil &invite=CPCAyYgN&ts=5fcf09db), documents are also reviewed by experts in 33 external expert assessment, the members of the EEC studied the main documents (mission, strategic plan until 2023, teaching materials of disciplines, syllabuses, control and measuring instruments, checklists, portfolio of residents, individual plans of residents for the 2019-2020 academic year, publications of teachers, admission rules to residency, personnel policy, internal quality assurance system programme, resources for training were viewed directly at the clinical bases of departments (classrooms, office equipment available for residents to work with literature, patient documentation, educational and methodological literature), resources for residency on the website http://umc.org.kz/?residency=post, which made it possible to identify the compliance of the educational organization with the basic accreditation standards.

When conducting an external examination, the Rules for the training of medical personnel in residency were taken into account (order of the Minister of Health of the Republic of Kazakhstan dated September 18, 2018 No. KP DSM-16), paragraph 13. It was established that the clinical bases of the Educational Residency Programme "Clinical pharmacology" are National Research Centre for Motherhood and Childhood, SPE on the REM " Multidisciplinary City Children's Hospital No. 2", SPE on the REM “City Centre of Phthisiopulmonology” of the Akimat of Nur-Sultan that provide training at all levels of health care (from primary care to highly specialized). The accredited educational programme " Clinical pharmacology" has 3 clinical bases, of which one was visited by experts (National Research Centre for Motherhood and Childhood). The volume of the study load and treatment and prophylactic work in specialties is determined by the individual work plan of the student of residency for one year and is monitored by monthly reports of the resident in an arbitrary form. The accounting of completed tasks is drawn up in the form of a portfolio according to the recommendations in the syllabus.

In connection with the new edition of order No. 647 On approval of state compulsory standards and standard professional training programmes in medical and pharmaceutical specialties dated July 31, 2015 (as amended by the order of the Ministry of Health of the Republic of Kazakhstan dated 02.21. No. KR DSM-12/2020 Chapter 2. Requirements for the content of residency educational programmes with a focus on learning outcomes), the educational programme has undergone changes and additions in relation to the development of the research competence of residents, which must participate in the work of the research team.

In this regard, the experts assessed the involvement of residents in research. There is no general provision or requirements for the implementation of scientific work at the university. At the same time, proactive R&D is being carried out, in which residents participate through writing reviews, collecting patient data, analysing the literature and patient examination results, preparing reports and presentations at conferences). Also, in accordance with Article 222 of the Residency of Clause 4 of the Code of the Republic of Kazakhstan “On public health and health care system” No. 360-VI ZRK dated July 7, 2020, external experts studied the activities and conducted conversations with mentors of residents and found that each resident was provided with a mentor.
The experts took into account the fact that the accredited educational programme for the current state educational standard is being implemented for 2 academic years, therefore, at this time there is no graduation of students, nevertheless, the entire educational, methodological, personnel and resource base has been assessed for compliance with accreditation standards. Through interviews with teachers and interviews with students, it was possible to determine their direct participation in the development (Study and Methodological Council), evaluation of educational programmes, decision-making on a number of key issues in the selection of clinical sites, topics of electives, participation in the appeal commissions for the admission and assessment of residents, development of the content of the individual plans of residents and the selection of mentors.

At the same time, this substantiated the need for inclusion in post-accreditation monitoring, along with the implementation of the EEC recommendations, an analysis of the implementation of the criteria of Standard 9, an annual report on the contingent of students.

Recommendations for improving activities in the implementation of the educational residency programme in the specialty "Clinical pharmacology" for compliance with the Accreditation Standards, developed by the EEC based on the results of the expert evaluation, were presented at a meeting with the management on December 10, 2020.

The programme of the 3-day visit (December 7-10, 2020) of the external expert assessment of the EEC was completed in full. On the part of the UMC CF team, participation of all persons indicated in the programme is ensured.

Thus, the external assessment and the visit of the EEC members made it possible to verify and validate the data of the self-assessment report of the residency programme in full in accordance with the Regulation on the External Expert Commission, the Guidelines for the external assessment of the medical organization ECAQA education.

For the work of the EEC, comfortable conditions were created, access to all necessary information and material resources of the accredited educational programme was organized. Experts note the high level of corporate culture and discipline of those responsible for the postgraduate education of CF UMC employees, employees of clinical bases, a high degree of openness of the team in providing information to members of the EEC.

1) Analysis for compliance with accreditation standards based on the results of an external assessment of the residency educational programme in the specialty "Clinical Pharmacology" and an overview of the strengths for each standard.

Standard 1: MISSION AND OUTCOMES

The mission and vision of UMC CF are developed taking into account the tasks of UMC CF within the integrated academic health care system of Nazarbayev University and are reflected in the UMC CF Development Strategy for 2019-2023, approved by the decision of the UMC CF Board of Trustees dated May 25, 2019 year No. 25.05.19. The mission of the accredited educational programme in the specialty "Clinical Pharmacology" is developed and harmonized with the mission of the UMC CF. The structure of the educational programme, which provides for a significant proportion of multidisciplinary practical training, the existing clinical facilities, a mentoring system, a journal club, an educational and clinical commission - a grand round, allow us to provide a patient-oriented and holistic approach to the care and treatment of patients. To ensure a patient-centred approach, first of all, patient safety, a list of privileges is drawn up for each resident, depending on the year of study and the level of theoretical and practical knowledge, in accordance with the requirements of JCI international accreditation standards. The management is taking measures to provide residents with adequate conditions for training and work in clinics. CF "UMC" in accordance with international JCI standards, provides a safe environment for work and learning. Resident trainees and listeners have the opportunity to study modern innovative technologies, which are implemented on the basis of the centres of the CF "UMC", to participate in master classes conducted by foreign experts, to work on modern equipment. Experts got convincing data, control questions, tasks in a test form, a list of practical skills, situational tasks, an assessment of the level of mastery of
a specific manipulation by a resident trainee), selection and admission of residents (the threshold score in the specialty is not less than 75, in English not less than 60), personnel policy in relation to teachers for the accredited educational programme, as well as the allocation of resources (the classroom fund of clinical bases according to contracts). The Code of Business Conduct, based on the principles of corporate social responsibility, has been developed and is operating.

At the same time informing the public about the mission and final results of the accredited educational programme, participation of all stakeholders in the development of the mission and goals of the educational programme is not sufficiently reflected.

**Strengths:**

1) Construction of training in residency, taking into account the integration of education-clinic-science in the context of the introduction of modern principles of training specialists for health care;

2) Special status of educational organization and cooperation with leading medical schools of the world (University of Pittsburgh);

3) Demand for educational programmes of residency and additional education among potential students;

4) A stable reputation among medical organizations and development prospects, taking into account modern requirements for healthcare professionals;

**Conclusions of the EEC by criteria.** Out of 17 standards conform: completely - 4, significantly -10, partially - 3, do not correspond - 0.

**Standard 1: completed**

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

1. Provide information to the public about the mission and the final results of the educational programme (hereinafter, EP) in the specialty "Clinical Pharmacology" (on the website of the UMC CF) (1.3.3)

2. Provide for the involvement of all stakeholders in the formulation of the mission and final learning outcomes of the residency educational programme in the specialty "Clinical Pharmacology" (1.4.1, 1.4.2)

**Standard 2: EDUCATIONAL PROGRAMME**

The accredited residency programme in the specialty "Clinical Pharmacology" has been prepared for implementation in accordance with the State Standard of Education and standard professional training programmes for medical and pharmaceutical specialties dated July 31, 2015 (as amended by the order of the Ministry of Health of the Republic of Kazakhstan dated February 21, 2020 No. KP DSM-12/2020 Chapter 2. Requirements for the content of educational programmes of residency with a focus on learning outcomes) for 2 years. The educational programme in the specialty "Clinical Pharmacology" is compiled in accordance with the State Educational Standard of the Ministry of Health of the Republic of Kazakhstan: hours and disciplines correspond to the standard curriculum. Based on the list of diseases and skills according to the State Educational Standard, a training programme, topics have been drawn up, the main nosology and areas of training have been determined. However, due to the fact that the admission of residents was not carried out, training for this EP is planned for the next academic year...

Residents of CF "UMC", starting from the first days of training, are actively involved in the practical part of training, work under the guidance of a mentor, supervising doctors. Equipping the centres of the CF "UMC" allows you to effectively implement active teaching methods (analysis of clinical cases, maintaining medical records, examination of the quality of medical care, patient management, training in a clinic with the participation of a real patient, attending medical conferences, consultations, teaching using modern technologies, magazine club, grand round). When conducting interviews with residents, the experts made sure that the organization of training and work is patient-oriented, at the same time, there is not always a sufficient number of thematic patients according to the requirements of the educational programme in the specialty "Clinical Pharmacology" to provide comprehensive training in the specialty not only of the pediatric profile, insufficient local
supply of scientific literature on the basis of the NRCMCH, while the NU library is well equipped, all residents have remote access to it. During the examination of the educational programme, it was found that the educational programme includes the scientific foundations and methodology of medical research, at the same time, residents do not fully study the issues of medical ethics, clinical epidemiology and evidence-based medicine within the educational programme, which should be more reflected in the CED ... The involvement of residents in scientific work is sufficient, although residents are mainly involved in the implementation of initiative topics, speak at conferences with reports. Nevertheless, given the strategic plans for the involvement of UMC CF in international multicentre studies, the organization's clinical pharmacologists are not involved in ongoing clinical trials. In the specialty "Clinical Pharmacology", the admission of residents is planned for the next academic year. In this regard, the number of doctors planned to be recruited as clinical mentors will depend on the number of residents of the new admission.

For the 2021-2022 academic year, it is planned to admit no more than 5 residents in the specialty "Clinical Pharmacology". As of today, 3 specialists in this area work in CF "UMC", it is planned involvement of leading clinical pharmacologists, employees of the Foundation, who are doctors and candidates of medical sciences, doctors of the highest category as clinical mentors. In order to improve the quality of the organization of the educational process, internal monitoring of satisfaction with the quality of work of the CF "UMC" is carried out through the annual survey of various stakeholders "Analysis of 360 degrees".

**Strengths:**
1. A wide range of specialties of educational residency programmes and the demand for potential students;
2. Implementation of educational programmes at the relevant JCI accredited clinical sites;
3. Developed clinical practice and bedside training for residents;
4. Applying a variety of teaching methods

**Conclusions of the EEC by criteria:** Out of 31 standards conform: completely - 16, significantly - 11, partially - 4, do not correspond - 0.

**Standard 2: completed**

**Recommendations for improvement identified during the external visit:**
1) Provide educational and methodological documentation on educational programmes in the state language in accordance with the provisions of the Law of the Republic of Kazakhstan dated 07/11/97 No. 151-I on the languages of the Republic of Kazakhstan (with amendments and additions as of 05/24/18) (2.1.6)
2) Provide for wider inclusion of ethics (2.1.8, 2.3.1), clinical epidemiology (2.2.1) and evidence-based medicine (2.2.3) issues in the educational programme in the specialty "Clinical Pharmacology";
3) Initiate and / or involve clinical pharmacologists of UMC CF in conducting clinical trials / studies of medicines in order to develop research potential in the specialty (2.2.2)
4) Ensure the participation of all stakeholders in the development of the educational programme (residents, clinical mentors, employers, alumni, representatives of professional associations) (2.5.2)
5) Consider the possibility of expanding clinical bases for the training of resident clinical pharmacologists to ensure rotation and multidisciplinary training of specialists in accordance with the educational programme (2.5.3., 2.6.3)

**Standard 3: ASSESSMENT OF TRAINEES**

CF UMC has developed and implemented a policy for assessing residents, which includes the principles and methods of assessment, which are reflected in the Rules for the organization of postgraduate education in CF UMC, approved by the decision of the Board of CF UMC No. 3 dated February 15, 2018. The assessment of the educational achievements of students is carried out on the basis of an assessment of the level of competencies developed by the teacher together with the science and education sectors of the CF "UMC" centres in various forms: control questions, tasks in a
test form, a list of practical skills, situational tasks, an assessment of the level of mastery by a resident trainee manipulation, tasks for laboratory and other work. To control and assess the current progress of resident trainees, CF UMC uses criteria-based assessment, including formative assessment, summative assessment, and a list of practical skills. The resident's assessment includes the current assessment (based on formative, summative assessment forms), the final assessment based on the results of the discipline in the form of an oral exam or in the form of testing and solving situational problems. The results of students' academic achievements are recorded in journals and examination sheets on paper. At the end of each academic period, an intermediate certification is carried out in the form of passing test questions developed on the basis of state compulsory standards of residency education. As an additional method for assessing residents, the portfolio is used, which experts have familiarized themselves with in other accredited residency programmes. At the same time, the analysis of assessment methods for validity and reliability is not formalized. The appeal system works. The work of the appeal commission is documented in a protocol signed by the chairman and all members of the commission.

The planned assessment methods in the preparation of residents in the specialty "Clinical Pharmacology", taking into account the final learning outcomes and the formation of the corresponding competence of the graduate, will be considered in the next academic year after the admission and approval of the teaching staff list. However, CF "UMC" is guided by unified policy of assessment and certification of residents.

**Strengths:**

1. Assessment of educational achievements of students is carried out using criteria, regulations and procedures developed in accordance with the goals and objectives for the implementation of the educational programme;
2. Skills assessment is carried out using summative assessment forms.

**Conclusions of the EEC on the criteria:** Out of 11 standards conform: completely - 2, significantly - 7, partially - 2, do not correspond - 0.

**Standard 3: completed**

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

1. Provide for the regular analysis and quality assessment of the assessment methods and formats used for validity and reliability in relation to the established learning outcomes and document (3.1.4, 3.1.6)
2. Consider the possibility of optimizing the documentation of the assessment of students' knowledge (introduction of an electronic journal) and the organization of training for teachers to maintain this documentation (3.1.9).

**Standard 4: TRAINEES**

Admission to residency is carried out on the basis of the Order of the Minister of Education and Science of the Republic of Kazakhstan dated 31 October 2018 No. 600 “On the approval of the Model rules for admission to training in educational organizations that implement educational programmes of higher and postgraduate education” and in accordance with the Rules for admission to residency of the CF" UMC ", approved by the decision of the Board of the CF" UMC "dated March 01, 2018 No. 5. The Rules contain requirements for applicants to residency, which EEC members have read on the website (http://umc.org.kz/about/science/rezidentura/applicants-to-the-residency/index.php).

According to the results of the interview of the EEC members, the residents answered questions about the rules for admission to the residency of the CF "UMC" independent examination centre, which ensures transparency and independence in the selection of applicants. Individuals with an IELTS 5.5 certificate, scientific achievements enjoy admission privileges. An applicant who does not agree with the results of the entrance exams has the right to submit an application to the appeal committee of the UMC CF. The admission of students to CF "UMC" is carried out annually according to the study of the needs of practical health care and from the capabilities of the clinical base, the availability of appropriate patients, the number of operations, staffing of the teaching staff
and clinical mentors. When developing admission rules, the opinions of residents are taken into account and active residents who are members of the UMC are involved for approval. In CF "UMC" there is a consulting system, by order of the head of CF "UMC" for the entire period of study in residency, a curator is assigned to each student. Resident trainees participate in all medical activities of the UMC centres related to the training programme, including duty. To obtain the right to participate in the treatment process, the resident trainee signs an informed consent not to disclose confidential information about patients. In case of forced breaks in preparation, UMC CF has all the conditions to provide distance learning, primarily theoretical materials, however, methodological support for residents, including distance learning at UMC CF requires further improvement.

In order to improve the organization of the educational process in CF “UMC”, the Department of Science and Education annually conducts a 360-degree survey based on the results of the academic year, the participants of which are resident trainees of all years of study, curators, supervising doctors, teachers, patients of resident trainees. The results of the survey are announced at the meeting of the UMC. CF "UMC" for social and personal support of resident trainees allocates appropriate resources: discounts on medical examinations, internship costs, speaking at conferences.

For the prevention of professional crisis, psychological support and psychosocial counselling, CF "UMC" has a sector of psychosocial support. Support was organized for residents of 1 year of study by the forces of senior residents.

In the specialty "Clinical Pharmacology" the admission is planned to be carried out in the 2021-2022 academic year. According to the human resources of CF "UMC" on this specialty it is planned to admit no more than 5 residents.

**Strengths:**
1. Compliance with the standard rules for admitting residents, taking into account the internal requirements for training at the UMC CF;
2. Involvement of students in the work of consultative and advisory bodies to participate in decision-making regarding the educational programme;

**Conclusions of the EEC by criteria.** Out of 30 standards conform: fully - 19, significantly - 10, partially - 1, do not correspond - 0

**Standard 4: completed**

*Recommendations for improvement identified during the external visit:*
1. Expand the possibilities of distance learning or other training formats to provide residents with additional training, including in certain difficult or unforeseen situations (4.5.4).

**Standard 5: TRAINERS**

When organizing training in residency, CF "UMC" is guided by the Rules for organizing the educational process in CF "UMC", approved by the decision of the Board of February 15, 2018 No. 3. The Rules indicate the procedure for appointing curators, teaching staff; the procedure for selection and approval of candidates, the number of teachers. For teachers working at clinical bases of medical organizations, a prerequisite is the availability of an academic degree or the highest qualification category. The selection of candidates is carried out by assessing their compliance with the profile of the vacant position. When interviewing EEC members with clinical mentors, it was noted that the teacher's work consists of lectures and practical exercises, including joint patient management, rounds with a resident trainee, joint participation in consultations, conferences, training on simulation equipment, preparation for the magazine club, grand round, discussion of clinical cases. The assessment of the teaching staff activity is carried out on the basis of the questionnaire "Assessment 360", according to the results of which the teaching staff and curators of the UMC CF are awarded, including the results of educational and scientific activities in nominations.

Training and advanced training of teachers is carried out on the basis of the annual Plan for the Development of Personnel Qualifications and Competencies, which is developed by the Human Resources Management Department. A unique opportunity to develop the potential of the teaching staff of CF "UMC" is provided by the budget programme 024 "Target contribution to Nazarbayev
University" by the subprogram "Transfer of technologies". Every year, through funding under this programme, more than 50 employees improve their qualifications in the best foreign centers, and mentor programmes and master classes are organized with the involvement of international experts, including those in clinical pharmacology: TDM master class: 03.12.2019-06.12. 2019 Dr. Carsten Muller-Director of the TLM laboratory, Dr. Martin Wiesen M. D.-clinical pharmacologist. Center of Pharmacology University, Hospital of Cologne; 11-13. 12. 2019-Therapeutic drug monitoring, Pharmacogenetics. Kiselev Yuri-General Practitioner, PhD, Associate Professor of Pharmacology at Oslo Metropolitan University, Norway. Haslemo Tore-Master of Pharmacy PhD, Associate Professor of Pharmacy Course, Oslo Metropolitan University, Norway, Johanessen Svein Ivar-Master of Laboratory Diagnostics, PhD. Honorary Senior Member of the Pharmacological Research Group of the National Epilepsy Clinic, Sandvika, Norway. Krigen Marianne Kristiansen-Master of Laboratory Diagnostics PhD, Associate Professor in the Laboratory Diagnostics course at Oslo Metropolitan University, Head of the Pharmacogenetics Laboratory at the Center for Psychopharmacology at Diakonjemme Hospital, Oslo, Norway. Landmark Cicilie Ullstrom Johannessen-Master of Pharmacy PhD.

CF "UMC" has medical specialists in clinical pharmacology with a scientific degree, the highest category, with human resources (Doctor of Medical Sciences -1, Candidate of Medical Sciences -1, non-graduate employee - 1). The recruitment of residents is planned for the 2021-22 academic year, therefore, the teaching staff and curators for this specialty are planned to be approved in the next academic year. Clinical pharmacologists, potential teaching staff in residency have advanced training, it is planned to improve teaching skills.

**Strengths:**
1. Highly qualified teaching staff from among professional clinicians;
2. Policy of selection and recruitment of teachers;
3. System of clinical mentoring of residents;
4. Programme for the development of pedagogical competencies and organizers of educational programmes.

**Conclusions of the EEC by criteria.** Out of 7 standards conform: fully - 3, significantly - 2, partially - 2, do not correspond - 0.

**Standard 5: completed**

**Recommendations for improvement identified during the external visit:**
1. To train residents in clinical pharmacology, involve graduated specialists and / or having the first and highest qualification categories in clinical pharmacology (5.1.1, 5.1.3)
2. Support and further professional development of teaching staff, both in the near and far abroad in the specialty "Clinical Pharmacology" (5.2.4)
3. Expand the training opportunities for employees (teachers and managers) involved in the educational process according to the methodology and active teaching methods (5.2.2, 5.2.4).

**Standard 6: EDUCATIONAL RESOURCES**

CF "UMC" has a modern material and technical base for training students, which includes: classrooms, lecture halls, conference rooms, libraries, computer classes, information technology facilities, a simulation class, clinical bases - four leading medical centres, including which NRCMCH, NCRC, RDC, as well as medical organizations in Nur-Sultan. For the training of residents of clinical pharmacologists, the NRCMCH base is supposed.

The adequacy of the material and technical base to ensure the clinical training of residents is ensured by all structural divisions of the CF "UMC" participating in the implementation of educational programmes. Feedback is collected from students on the material and technical equipment through a questionnaire for reviewers "Evaluation of the residency programme".

Work is underway to improve the IT-technologies and infrastructure of the UMC CF, the percentage of access to the Internet is 100%, a local computer system Bitrix24 has been created, there is a video broadcasting system in conference rooms, a subscription to the professional platform ZOOM, which was demonstrated to members of the EEC during video conferencing. To ensure the
quality of personnel training, since November 2016, a simulation class with a total area of 62.0 m2 has been operating on the basis of the NRCMCH, located in 2 rooms equipped with the necessary equipment, furniture, a stationary computer, the Internet, the class is designed for about 15-20 students.

In the learning process, teachers and students use existing and new information and communication technologies for self-study. CF "UMC" has scientific libraries located in 2 centres: NRCMCH and NCRC, which also provide access to the scientific library of the Nazarbayev University School of Medicine, which provides information resources in English, Russian and Kazakh languages. Medical information resources include PubMed, Up to Date, Medline Complete, Clinical Key, Access medicine, Clinical trials, Cochrane Library. Resources and services are dedicated to the educational and research process of resident trainees, faculty and staff

The distance learning system is based on the Moodle programme. Commissioners were shown resident training materials on the MOODLE platform that can be used to evaluate residents. The clinics use the Medical Information System "AKGUN" and there is an integration of MIS with information systems of the Ministry of Health of the Republic of Kazakhstan. Residents have access to the systems of the Register of Pregnant Women and Women of Fertile Age, the Oncological Register and other information systems, which allows students to directly engage in work with patients. Direct work of residents is organized together with employees of clinical bases in all areas of their activities, work in multidisciplinary teams during examination, treatment and emergency care for patients.

Residents are actively involved in scientific research, although the bulk of which falls on initiative topics. The main problems that hinder the pursuit of science were: lack of time, insufficient level of knowledge and skills, lack of material motivation, insufficient supervision of scientific leaders and insufficient equipment of MTB for science. Annually, at the end of the academic year, 360 conducts a comprehensive survey, the results are discussed at a meeting of the UMC, conclusions and recommendations are drawn up for making changes in order to improve the organization of the educational process in CF "UMC". The examination process is reduced to the assessment and approval of educational programmes on the EMC. To expand international cooperation, exchange resident trainees; exchange of experience in the field of medical education, including training, for 2017-2018, 10 resident trainees were sent to international conferences, forums, congresses at the expense of the funds of the CF "UMC", 3 of them abroad.

Strengths:
1. Modern clinical base for training residents and international cooperation with a strategic partner - the University of Pittsburgh, School of Medicine;
2. Provision of the educational process with appropriate medical equipment and access to clinical resources of practice bases;
3. Support of educational programmes with appropriate IT technologies, library resources with access to international databases of professional literature;
4. Programme of international cooperation with foreign partners.

Conclusions of the EEC by criteria. Out of 21 standards conform: fully - 8, significantly - 13, partially - 0, do not correspond - 0

Standard 6: completed

Recommendations for improvement identified during the external visit:
1. Improve the use of the digital technology system in the educational process (6.1.2).
2. Initiate the expansion of international cooperation and exchange of teachers and residents in the field of clinical pharmacology, including in the framework of joint research with the involvement of residents (6.7.3, 6.7.4)

Standard 7: PROGRAMME EVALUATION

CF "UMC" evaluates programmes taking into account the mission, required learning outcomes, programme content, assessment of knowledge and skills, educational resources. Expertise, systematic study and comprehensive assessment of educational programmes, with the aim of improving and
guaranteeing quality, is carried out by the Department of Science and Education. The CF "UMC" systematically collects and analyses feedback from the teaching staff and students through such tools as: questioning teachers, questioning students, which includes questions about the quality of the educational process and its proper implementation. In order to receive feedback from employers on the clinical practice of graduates, a questionnaire has been developed for employers to assess the quality of training of graduates of the UMC CF (http://umc.org.kz/feedback/). The data obtained are discussed at meetings of the UMC and decisions are made on further corrective actions. IN CF "UMC" assesses the satisfaction with the training of resident trainees upon completion of each basic discipline on a five-point scale anonymously on the Surveymonky.com online platform. As part of the analysis of the residency programme, a 360 survey is conducted annually, which includes an assessment of satisfaction with the UMC CF residency programmes. The survey involves resident trainees, teaching staff, curators, patients, supervising doctors. When interviewing residents, it was noted that the survey is carried out once a year at will, the questions of the questionnaire do not always reflect the specifics of training in a number of specialties. Residents and teaching staff note that filling out the assessment forms on paper is time-consuming and recommend working out the issue of introducing an electronic questionnaire format. Teachers regularly assess residents and their learning progress based on formative (constructive feedback during the rotation) assessment, as well as on the basis of the implementation of the approved minimum number of practical skills and manipulations in the specialized departments, as reflected in the list of privileges. The results of the residents' assessment are discussed at the meeting of the Educational and Methodological Council of the UMC CF, where, based on the results of the analysis, a decision is made on the plan of further actions.

The internal quality assurance system of the UMC CF is coordinated by the Quality Management and Patient Safety Department (QM & PSD) under the leadership of the Deputy Director for Quality Management and Patient Safety, availability of international accreditation by JCI indicates the compliance of clinical bases, material and technical equipment with international standards.

**Strengths:**

1) A system for monitoring the quality of educational programmes through external review at the planning and approval stage, assessment by the educational and methodological council, feedback from participants in educational relations and indicators of the demand for programme graduates;

2) Actively applied feedback from students and teachers;

3) Assessment by type 360°.

**Conclusions of the EEC by criteria.** Out of 15 standards conform: fully - 8, significantly - 7, partially -0, do not correspond - 0

**Standard 7**: completed

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

1. Improve the feedback system through regular monitoring and analysis of the data obtained, including special questions in the 360° survey, reflecting the specifics of specialties and use the results of the survey to improve educational programmes (7.1.2, 7.1.5, 7.2.2)

**Standard 8: GOVERNANCE AND ADMINISTRATION**

CF "UMC" implements educational programmes in accordance with the regulatory legal acts approved by the Ministry of Health of the Republic of Kazakhstan and the Government of the Republic of Kazakhstan, as well as internal regulatory documents. Upon successful completion of training in residency, a certificate of completion of the residency is issued with the assignment of the qualification "Doctor in the relevant specialty". The certificate is issued by the CF "UMC" of the state standard. In 2019-2020, there was no graduation in the specialty "Clinical Pharmacology".

In order to improve the educational programme and the overall academic activity of CF "UMC", it is planned to create clinical and academic departments for the effective organization and provision of the educational process in residency, to achieve the trinity of clinical practice, education and science.
Management of the educational process, including at the postgraduate level, is carried out according to the organizational structure of the CF "UMC" and is under the leadership of the medical director. The Department of Science and Termination is responsible for organizing residency programmes, supporting the educational process of resident interns, monitoring educational and methodological support of educational programmes, introducing a model of medical education based on a competency-based approach. In order to effectively manage the educational process, the successful implementation of medical education in CF "UMC" there is an Educational and Methodological Council approved by order of the Deputy Chairman of the Board of CF "UMC" dated 01.02.2016 No. 210. The UMC is the main consultative and advisory body on educational and methodological and organizational support of the educational process in the CF "UMC". For the purpose of effective planning, development and implementation of residency programmes, UMC CF included representatives of practical healthcare, teachers involved in the implementation of residency programmes, resident trainees in the UMC.

The residency programme is carried out on the basis of the state educational order at the expense of the 006 deferred expenses "Training of specialists with higher, postgraduate education and the provision of social support to students" and on a paid basis. The Department of Science and Education is the administrator of the residency budget, which, on the basis of the curriculum, plans expenses for the relevant items, including the payment of teachers and mentors, which is calculated based on classroom hours (3 hours per week) in accordance with the calendar-thematic plan.

CF "UMC" conducts a regular management review to improve the quality of medical services based on internal audits in the centres, tracers in accordance with international JCI requirements. Regular review and measures of the quality management system, internal audit aimed at the continuous process of improving the quality of the educational process are not documented.

**Strengths:**
1. Transparency of educational programme management;
2. Awareness of the participants in the educational process through the placement of information on the educational programme on the website of the CF "UMC";
3. Financial and economic activity of CF "UMC" is aimed at ensuring financial stability;
4. Ensuring the efficient use of financial resources.

**Conclusions of the EEC by criteria.** Out of 15 standards conform: fully - 6, significantly - 4, partially - 5, do not correspond - 0

**Standard 8: completed**

**Recommendations for improvement identified during the external visit:**
1. Develop a policy of academic integrity and ensure the use of an anti-plagiarism programme (8.1.3)
2. Consider the possibility of creating a clinical and academic department for clinical pharmacology and drug supply to organize and provide training for residents in the specialty "Clinical Pharmacology" in the workplace (8.2.1)
3. Improve management and financing mechanisms to increase the motivation of teachers who implement the educational process in the specialties of residency (8.3)
4. Develop a programme to ensure the quality of the educational process, conduct regular reviews and document the improvement process (8.4.2., 8.4.3)

Thus, all 8 accreditation standards have been met, no inconsistencies in the fulfilment of the criteria of each of the basic accreditation standards in the process of analysing the self-assessment report and carrying out the examination as part of the tasks of the external expert evaluation programme were found.
5. Recommendations for improving educational residency in the specialty "Clinical Pharmacology":

**Standard 1 MISSION AND OUTCOMES:**
1) Provide information to the public about the mission and end results of the educational programme in the specialty "Clinical Pharmacology" (on the website of the UMC CF)
2) Provide for the involvement of all stakeholders in the formulation of the mission and final learning outcomes of the residency educational programme in the specialty "Clinical Pharmacology"

**Standard 2 Educational programme**
3) Provide educational and methodological documentation on educational programmes in the state language in accordance with the provisions of the Law of the Republic of Kazakhstan dated 07/11/97 No. 151-I on the languages of the Republic of Kazakhstan (with amendments and additions as of 05/24/18)
4) Ensure the participation of all stakeholders in the development of the educational programme (residents, clinical mentors, employers, alumni, representatives of professional associations)
5) Provide for a broader inclusion of ethics (2.1.8, 2.3.1), clinical epidemiology and evidence-based medicine in the educational programme in the specialty "Clinical Pharmacology"
6) Initiate and / or engage in clinical trials / studies of medicinal products by clinical pharmacologists of CF UMC in order to develop research potential in the specialty
7) Consider the possibility of expanding clinical bases for the training of resident clinical pharmacologists to ensure rotation and multidisciplinary training of specialists in accordance with the educational programme

**Standard 3 ASSESSMENT OF TRAINEES**
8) Provide for regular analysis and quality assessment of methods and assessment formats used for validity and reliability in relation to established learning outcomes and document
9) Consider the possibility of optimizing the documentation of the assessment of students' knowledge (introduction of an electronic journal) and the organization of training for teachers in maintaining this documentation

**Standard 4 TRAINEES**
10) Expand the possibilities of distance or other training formats to provide residents with additional training, including in certain difficult or unforeseen situations.

**Standard 5 TRAINERS**
11) To train residents in clinical pharmacology, involve graduated specialists and / or having the first and highest qualification category in clinical pharmacology
12) Support and further professional development of teaching staff, both in the near and far abroad in the specialty "Clinical Pharmacology"
13) Expand training opportunities for employees (teachers and managers) involved in the educational process according to methodology and active teaching methods

**Standard 6 Educational Resources**
14) Improve the use of the digital technology system in the educational process
15) To initiate the expansion of international cooperation and exchange of teachers and residents in the field of clinical pharmacology, including in the framework of joint scientific research with the involvement of residents

**Standard 7. PROGRAMME EVALUATION**
16) Improve the feedback system by regularly monitoring and analysing the data received, including special questions in the 360 ° survey, reflecting the specifics of specialties and use the results of the survey to improve educational programmes

**Standard 8. GOVERNANCE AND ADMINISTRATION**
17) Consider the possibility of creating a clinical and academic department for clinical pharmacology and drug supply to organize and provide training for residents in the specialty "Clinical Pharmacology" in the workplace

18) Develop a policy of academic integrity and ensure the use of an anti-plagiarism programme

19) Improve the management and funding mechanisms of the centre to increase the motivation of teachers who implement the educational process in the specialties of residency

20) Develop a quality assurance programme for the educational process, conduct regular reviews and document the improvement process
6. Recommendation to the ECAQA Accreditation Council

The members of the EEC came to a unanimous decision to recommend that the Accreditation Council accredit the 6R112500 – “Clinical Pharmacology” residency programme of the UMC Faculty of Medicine for a period of 5 years.

Chairman
Morenko Marina Alekseevna

The foreign expert
Ivan Oborne (Ivana Oborná)

The foreign expert
Zinchenko Rena Abolmasova

Academic expert
Kurmanova Almagul Medeubayeva

Academic expert
Yesenkulova Saule Askerovna

Academic expert
Ramazanova Sholpan Hamzaeva

Academic expert
Sholpan Kaliyeva Sabatina

Academic expert
Sadiev Zhanar Samarkhanova

Academic expert
Zhamantaeva Botagoz Daukenova

Academic expert
Beisebayev Eldar Nurlanovich

The observer of ECAQA
Sarsenbayeva Deryabino Bulatovna
Quality profile and external evaluation criteria (summary) of the educational programme in the specialty "Clinical Pharmacology" of the UMC Faculty of Medicine

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* BS - the basic standard must be fulfilled by each medical educational organization, and the fulfilment must be demonstrated during an external assessment of the medical educational and scientific organization.
Appendix 2.

List of documents requested by EEC members within the framework of accreditation

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