

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

**REPORT
OF THE EXTERNAL EXPERT COMMISSION
ON THE RESULTS OF THE EDUCATIONAL PROGRAMME EVALUATION
"MEDICAL GENETICS" OF THE CORPORATE FOUNDATION
"UNIVERSITY MEDICAL CENTER" FOR COMPLIANCE WITH THE
ACCREDITATION STANDARDS OF POSTGRADUATE EDUCATION
PROGRAMMES (RESIDENCY SPECIALTIES) OF THE MEDICAL
EDUCATIONAL ORGANIZATIONS**

period of external expert evaluation: 7-10.12.2020

Nur-Sultan, 2020

TABLE OF CONTENTS

	List of symbols and abbreviations	2
1.	Composition of the EEC	3
2.	General part of the final report of the EEC	5
2.1	Presentation of the Corporate Foundation "University Medical Center (CF UMC) and the residency educational programme in the specialty "Medical Genetics"	5
2.2	Information about previous accreditation	7
2.3	Analysis of the self-assessment report of the residency educational programme in the specialty "Medical Genetics"	7
3.	Description of the stages of external expert evaluation and conclusion	8
4.	Analysis for compliance with accreditation standards based on the results of external evaluation and the residency educational programme in the specialty "Medical Genetics" of the CF UMC and a review of strengths for each standard	15
5.	Recommendations for improving the educational programme of residency in the specialty "Medical Genetics" of the CF UMC	23
6.	Recommendation to the ECAQA Accreditation Council	25
7.	Attachment 1. Quality profile and criteria for external evaluation and educational programme of residency in the specialty "Medical Genetics" of CF UMC for compliance with ECAQA Accreditation Standards	26
8.	Attachment 2. List of documents requested by EEC members as part of specialized accreditation	27

LIST OF SYMBOLS AND ABBREVIATIONS

- SCES – state compulsory educational standard
Department – Department of Science and Education of the Corporate Foundation "University Medical Center"
DET – distance educational technologies
ECAQA - Eurasian Center for Accreditation and Quality Assurance in Higher Education and Healthcare
EA – end-of-course assessment
IC - individual curriculum
RW - research work
CF "UMC" - corporate foundation "University Medical Center"
CED – catalog of elective disciplines
MH RK – Ministry of Healthcare of the Republic of Kazakhstan
MES RK – Ministry of Education and Science of the Republic of Kazakhstan
NSCMC – National Scientific Center for Motherhood and Childhood
NSCOT – National Scientific Center of Oncology and Transplantology
NCCR - National Center for Children's Rehabilitation
PGE – postgraduate education
AT – advanced training
RT – retraining
TS - teaching staff
EP – educational programmes
RDC – Republican Diagnostic Center
WC - working curriculum
NCIE - national center for independent examination
QMS – quality management system
IRWT - the work of a resident-trainee under the supervision of a clinical mentor during the period of clinical activity of the resident-trainee
IRW – independent work of a resident-trainee
EMC - educational and methodological council
TM – teaching materials
GPA – Grade Point Average - the arithmetic average of the grades received for all completed courses, taking into account the time spent on them
JCI – Joint Commission International

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 Center" (CF UMC) during the period from December 7 to December 10, 2020 in the following composition:

Chairperson of the External Expert Commission

MORENKO MARINA ALEXEYEVNA,

Doctor of Medical Sciences, Head of the Department of Children Diseases

JSC "Astana Medical University", Chief freelance pediatric immunologist of the Public Healthcare Department of Nur-Sultan, member of the European Academy of Allergists and Clinical Immunologists, 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 of Higher Education of the Czech Republic, Deputy Chairperson of the Fulbright Czech-American government organization, vice-rector for international relations at Palacký University, obstetrician-gynecologist 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 Center named after Academician N.P. Bochkov" (MGRC), head of the laboratory of genetic epidemiology, scientific secretary of the Dissertation Council D 001.016.01 for the defense 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 MEDEUBAYEVNA,

Doctor of Medical Sciences, Professor of the Department of Clinical Specialties of the Higher School of Medicine of Al-Farabi KazNU, leading researcher at JSC "Scientific Center for Obstetrics, Gynecology and Perinatology", Almaty

National Academic Expert

YESSENKULOVA SAULE ASKEROVNA

Doctor of Medical Sciences, Associate Professor of the Department of 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 KHAMZAYEVNA,

Candidate of Medical Sciences, Associate Professor of the Department of General Medical Practice No.2 NJSC "Kazakh National Medical University named after S.D. Asfendiyarov"

National Academic Expert

KALIYEVA SHOLPAN SABATAYEVNA,

Candidate of Medical Sciences, Associate Professor, head of the Department of Clinical Pharmacology and Evidence-Based Medicine of 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 Chairperson of the Form Commission of the Healthcare Administration of Karaganda Region

National Academic Expert

SADIYEVA ZHANAR ZAMANKHANOVNA,

anesthesiologist-resuscitator, head of the department of postgraduate education

JSC "South Kazakhstan Medical Academy"

National Academic Expert

DZHAMANTAYEVA BOTAGOZ DAUKIMOVNA,

Candidate of Medical Sciences, acting head of the Department of Neurosurgery and Neurology of JSC "Scientific Center of Neurosurgery"

National Academic Expert

BEISEBAYEV ELDAR NURLANOVICH,

PhD, assistant at the Department of Oncology, Mammology and Radiation Diagnostics

Non-commercial Educational Institution "Kazakhstan-Russian Medical University"

ECAQA Observer SARSEN BAYEVA DARIYABANU BULATOVNA,

Head of international department

NI "Eurasian Center for Accreditation and Quality Assurance in Higher Education and Healthcare"

Tel.: +7777 1471726, e-mail: info@ecaqa.org

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

The EEC report contains an evaluation of the educational programme of residency in the specialty "Medical Genetics" of CF UMC for compliance with the Accreditation Standards of postgraduate education programmes (residency specialties) of ECAQA medical educational organizations, recommendations of the EEC for further improving the educational activities of CF UMC in the field of postgraduate education.

2. General part of the final report of the EEC

2.1 Corporate Foundation "University Medical Center" and residency educational programme in the specialty "Medical Genetics"

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

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

Today, CF "UMC" unites four leading medical centers, including the National Scientific Center for Motherhood and Childhood (hereinafter - NSCMC), the National Center for Children's Rehabilitation (hereinafter - NCCR), the Republican Diagnostic Center (hereinafter - RDC) and a

branch in Kyzylorda. Three centers of the CF "UMC" (NSCMC, RDC, NCCR) 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 the international standard. In 2019, by resolution of the Government of the Republic of Kazakhstan, the National Center for Oncology and Transplantology was removed from the CF "UMC" and transferred to the jurisdiction of the Ministry of Healthcare of the Republic of Kazakhstan. Also, by the end of this year, the National Scientific Cardiac Surgery Center will be transferred to the structure of the CF UMC.

Activity as part of the integrated academic healthcare system of Nazarbayev University ensures the uniqueness of the educational services offered. As part of the integrated academic healthcare system, Nazarbayev University, CF "UMC" attracts foreign specialists "mentors" and organizes master classes with the participation of international experts at its centers to create a competitive generation of medical personnel, develop and adapt modern protocols for the 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 standards of quality and safety of medical care JCI, including through the use of methodologies for continuous quality improvement, advanced training of medical personnel in leading medical organizations in the world, the introduction of a patient-oriented system of medical care, including based on the recommendations of partner mentors from Switzerland in the field of hospital services.

In accordance with the Charter of the CF "UMC", approved by the decision of the Governing Council of Nazarbayev University dated October 16, 2015 under No.16.10.15 (with amendments and additions approved by the decision of the Governing Council of Nazarbayev University dated February 6, 2018 under 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 policies in the field of quality assurance.

The organizational structure of CF "UMC" was developed based on the strategic directions approved by the governing body of CF "UMC", the vertical subordination of the relevant structural subdivisions to the Deputy Chairperson of the Board, Medical and Executive Directors in the areas supervised. The basis for constructing the organizational system of the centers of the CF "UMC" is the main process 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".

Residency training at 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 Foundation", Nazarbayev University, Intellectual Schools and their organizations carry out educational activities without a license, without state attestation.

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

Residency programmes are implemented on 11 clinical specialties:

- 6R111500 Neurology, incl. pediatric;
- 6R114400 Obstetrics and gynecology, incl. pediatric;
- 6R112600 Anesthesiology and resuscitation, incl. pediatric;
- 6R114300 Neonatology;
- 6R111900 Radiation diagnostics;
- 6R114200 Pediatrics;
- 6R113300 Pediatric surgery;
- 6R115000 Pediatric oncology and hematology
- **6R114500 Medical genetics;**
- 6R113600 Traumatology and orthopedics, incl. pediatric;
- 6R111000 Nephrology, incl. pediatric;

The total number of students in the residency programme of the CF “UMC” in 2019-2020 is 66 residents, including 2 residents in the specialty “**Medical Genetics**”. In 2019 and 2020, 58 and 34 residents were graduated, respectively; in the specialty “Medical Genetics” 4 residents were graduated in 2019.

The total number of teachers involved in the educational process of residency and additional professional training is 206 people, of whom 27 are Doctors of Medical Sciences, 60 – Candidate of Medical Sciences. The number of teaching staff in the residency programme “Medical Genetics” is 2.

2.2 Information about previous accreditation

Accreditation of the residency educational programme in the specialty “Medical Genetics” of CF UMC has not yet been carried out.

2.3 Analysis of the self-assessment report of the residency educational programme in the specialty “Medical Genetics” of CF UMC

Preparation for specialized accreditation of the Corporate Foundation "University Medical Center" was carried out based on the order No. 18-Н/К dated July 20, 2020 “On approval of the composition of the working group for preparation for specialized accreditation of the corporate foundation "University Medical Center".

The self-assessment report of the educational programme is presented on 120 pages of the main text, of which 20 pages are attachments and electronic versions of documents via the link in Google Drive https://drive.google.com/drive/folders/1-Scs8FaLa3_nsTJ9MB_1WC6CXw8IiazW

The report is characterized by completeness of answers to all 9 accreditation standards, structured taking into account the recommendations of the ECAQA self-assessment Guidelines, as well as internal unity of information. A covering letter signed by the acting medical director Khairullin B.Ye is attached to the report, 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 conducting self-assessment of educational programmes Syzdykova Alma Alibekovna, director of the Department of Science and Education.

A working group of 22 people headed by Chairman Taigulov Ye.A. on preparing the self-assessment report, made certain work: the content of the accredited educational programme, the conditions for its implementation, staff, educational resources were analyzed; the necessary information was collected in accordance with the Accreditation Standards of postgraduate education programmes (residency specialties) of medical educational organizations (hereinafter referred to as the 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 and areas for improvement for each of the 9 standards.

All standards contain the actual practice of the CF UMC in training residents in the specialty “**Medical Genetics**”, taking into account the start of admission of students in 2019, reasoned data, examples of the implementation of the objectives for the educational programme, national and international events, methodological support, confirming compliance with the requirements of accreditation standards. The description in the self-assessment report is quite complete and updated regarding the number of residents, teachers, administration, information on selection and admission, training outcomes, results of assessment of knowledge and skills, material and technical base of the university and clinical bases, contractual obligations with partners (universities, associations, database), financial information, plans for development and improvement, etc.

The conclusion for each of the 8 accreditation standards includes a description of the strengths and areas for improvement identified during self-analysis and prospects for development in this specialty. Compliance analysis is given only for 8 standards, since new residency educational programmes are submitted for examination and the process of continuous renewal (standard 9) will

be analyzed and assessed at the stage of post-accreditation monitoring when the accreditation council makes a decision on full accreditation of the educational programme.

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

3. Description of external expert evaluation

External expert work to evaluate the residency educational programme in the specialty “Medical Genetics” was organized in accordance with the Guidelines for conducting external evaluation of educational organizations and educational programmes of the ECAQA (approved by order of the General Director of the NI “Eurasian Center for Accreditation and Quality Assurance in Higher Education and Healthcare” under No.5 dated 17.02.2017) and according to the programme and schedule approved on 16.11.2020 by the General Director of ECAQA Sarsenbayeva S.S. and agreed with the acting Medical Director of the CF "University Medical Center" Khairullin B.Ye.

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

The CF UMC team ensured the presence of all persons indicated in the visit programme and according to the lists of interview participants (Table 1).

Table 1 - Information on the number and category of participants in meetings, interviews, conversations with EEC members 07-10.12.2020

No.	Full name	Job title
1	Pya Yuriy Vladimirovich	Chairman of the Board
2	Khairullin Bekbay Yeslyamovich	Deputy Chairman of the Board
3	Khamzina Nurgul Kaliyevna	Deputy Chairperson of the Board
4	Syzdykova Alma Alibekovna	Director of the Department of Science and Education (DSE)
5	Abdrakhmanov Asan Boribekovich	Director of the Strategy Department
6	Yessetova Asel Adilbekovna	General manager of DSE
7	Agdarbekova Madina Ruslanovna	General manager of DSE
8	Abdirova Bagdat Umirkhanovna	General manager of DSE
9	Niyazbekova Bagdagul Mukhambetzhonovna	General manager of DSE
10	Abakassova Gulmira Zhanatovna	General Manager of DSE
11	Kapassova Bayan Birzhankyzy	General manager of DSE
12	Akhmetova Assem Tolegenovna	Chief Manager of the Science and Education Sector of NSCMC
15	Bokebayev Zhanybek Tolepkaliyevich	Chief Manager of the Quality Management Department
16	Saydildina Lyazzat Laulekovna	Head of Obstetric Department No.2 with maternity unit (postpartum) NSCMC
17	Primbetov Berik Uzakpayevich	Head of the Department of Women's Diseases, NSCMC
18	Umirbekova Balzhan Bulatovna	Head of Oncology Department No. 1 NSCMC
19	Abilkhadirova Asel Bayakhmetovna	Head of the Department of Neurology of Early Ages, NSCMC

21	Tortayeva Gulnar Sagiyevna	Head of the Neonatology Department of the NSCMC
22	Bayanova Mirgul Faizullinovna (remotely)	Head of the Department of Clinical Genetic Diagnostics NSCMC
23	Tazhibayev Dulat Mazhitovich	Head of the Radiation Diagnostics Department of the RDC
24	Mustafinova Gulnara Toleukhanovna	Head of the Department of Anesthesia, Resuscitation and Intensive Care
25	Abentayeva Botakoz Abubakirovna	Head of the neonatal resuscitation and intensive care department
26	Abishev Bakhyt Khamitovich	Head of the Department of Radiation Diagnostics
27	Olkhovik Yuriy Mikhailovich	Senior resident in surgery, Department of Pediatric Surgery No. 1, NSCMC
28	Nigmatullina Nazym Bakytbekovna	Head of the Department of Nephrology, Dialysis and Transplantation, NSCMC
29	Abilkhadirova Assel Bayakhmetovna	Head of the Department of Early Childhood Neurology

The sequence of the visit implementation during December 7-10, 2020 is presented in detail in the Visit Programme, which is located in the documentation of the accreditation center and in the attachment to this report.

Interviews were conducted with 22 teachers (in three groups), residents (43) and employers (representatives of practical healthcare). The total number of students in the residency programme in the specialty “**Medical Genetics**” in 2019-2020 is 2 residents. In 2019, 4 residents graduated in the specialty “**Medical Genetics**”.

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 educational documentation is the Department of Education and Science, and teachers are more involved in the preparation of control and measuring tools. In order to verify the data of standard 5, external experts obtained an opinion on personnel policies and approaches to the development of teachers’ pedagogical competence, motivation to work with residents and supervision. Experts have found that teachers initiate research topics for residents, stimulate the need for additional training and independent work with literature and medical documentation.

During the interview of teachers under “Medical Genetics” programme, experts asked questions about the participation of residents in scientific projects, what criteria are used to form a catalog of elective disciplines, how many residents study on a budget and paid basis, are there any differences in the training of residents studying for a fee and studying under a state grant?, how many hours are allocated for research activities, what forms of social support are provided for residents, the possibility of expanding the educational programme in endocrinological genetics, participation in international conferences on medical genetics.

It was found that residents teaching in the “Medical Genetics” programme participate in research activities in the form of participation in conferences and in the work of a journal club. Teachers and residents take part in the formation of the catalog of elective disciplines at the beginning of the academic year. There were no admissions to residency programmes in the specialty “Medical Genetics” in the current academic year.

In order to validate the implementation of the self-assessment report data and obtain evidence about the quality of the programmes, interviews were conducted with 44 residents on the zoom platform. The experts asked questions about satisfaction with training at CF UMC, sufficient time to manage patients, work in Damumed with medical documentation, satisfaction with teaching methods and qualifications of teachers, social and moral support for residents in need, participation in “Journal Clubs”, availability of international databases of professional literature as a resource. In general, residents are satisfied with the training, assessment methods, and purposefully entered this

organization, because they believe that CF UMC has good educational resources, image and international relations, at the same time, residents would like more independence in managing patients and conducting international events.

Residents showed their commitment to organizing education, were active in answering questions from external experts, demonstrated their judgment in organizing training, assessing their skills, advisory support, the opportunity to participate in research and development, financing and demonstrated proficiency in English when answering questions from foreign expert Ivana Oborna. Experts examined residents' documents (portfolios, resident assessment results, checklists, residents' survey results).

Interviews with 12 employers on all educational programmes of the CF UMC residency applied for accreditation were conducted online and included questions such as: knowledge of the university mission, participation in the development of the mission and proposals for the strategic plan, participation in the work of the advisory bodies of the CF UMC, satisfaction with basic knowledge and skills of residents, participation in training residents through mentoring, providing the department and residents with the necessary resources for practical training and the formation of clinical thinking, problems of interaction with departments and universities in general, employment of residency graduates, etc. Questions were asked about the participation of residents in scientific conferences, internship opportunities at clinical bases.

A review of resources showed that the clinical base "Scientific Center for Motherhood and Childhood", available for review at the time of the external visit, corresponds to the goals and objectives of the relevant educational programmes in the specialties - pediatrics, neonatology, obstetrics and gynecology, anesthesiology and resuscitation, etc., since has 450 beds, modern equipment and demonstrates accessibility to students, and employees who simultaneously perform the roles of teachers and curators (mentors) provide quality training in compliance with ethics and deontology. NSCMC has a department of clinical genetic diagnostics (DCGD). The DCGD laboratory base consists of equipment for cytogenetic, molecular cytogenetic (FISH - fluorescence in situ hybridization), molecular genetic studies (PCR, qPCR, fragment analysis, MLPA, Sanger sequencing, etc.). The list of services is expanding due to an increase in the range of gene sequencing, qPCR under autoinflammatory syndromes, some forms of neuropathies and other hereditary diseases.

Before starting the corresponding discipline of the educational programme, the resident receives a syllabus from the teacher and knows what skills he/she must acquire and develop during training. There is a computer class with Internet access and access to foreign databases of scientific and educational literature. The reading room at the NSCMC has 34 seats.

Experts studied the documentation for the educational programme "**Medical Genetics**" at the link <http://umc.org.kz/educational-methodical-documentation/>, which confirmed compliance with accreditation standards, including documentation about teachers http://umc.org.kz/wp-content/uploads/2019/11/PPS_list.pdf and resident curators http://umc.org.kz/wp-content/uploads/2019/11/about_curators.pdf and at the request of EEC members.

Next, a meeting of EEC members was held based on the results of the external evaluation. A final discussion of the results of the external evaluation, study of documents, results of conversations, interviews and questionnaires was held. The EEC members began drafting the final report of the EEC.

A meeting of EEC members took place. The 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 residency educational programme in the specialty "**Medical Genetics**" for compliance with the ECAQA Accreditation Standards." No comments were made by the EEC members. Recommendations for improving the postgraduate education sector in general and the department implementing an accredited educational programme were discussed. A draft report with recommendations was prepared.

Morenko Marina Alexeyevna, the Chairperson of the EEC, held a final open vote on the recommendations for the CH UMC and a final vote on the recommendations for the ECAQA

Accreditation Council. Then, the chairperson of the EEC announced recommendations for the management and employees of the educational organization based on the results of the external evaluation as part of the accreditation of educational programmes of residency specialties.

Survey results.

An observer from ECAQA conducted an online survey of residents and teachers of the accredited educational programme of CF UMC on the resource <https://webanketa.com/>.

Results of the survey of CF UMC residents:

The total number of residents who responded was 89. Of the total number of respondents, residents of the 2nd year of study predominated (91%), residents of the 1st year of study accounted for 9%, respectively. They would recommend studying at this educational organization to their acquaintances, friends, and relatives - 66% completely agree, 25% partially agree.

70% of respondents completely agree and 22% partially agree that programme managers and teaching staff are aware of their problems related to training. According to 76% of residents, programme managers and teachers constantly involve them in the work of advisory bodies, 8% responded that they do not involve them, and 8% know nothing about it. 66% of residents are completely satisfied and 22% are partially satisfied with the conditions and equipment of training rooms and auditoriums of this educational organization, while 3% of residents are completely dissatisfied, 6% are partially dissatisfied, and 2% doubt the answer to this question. According to 61% (completely agree) and 8% (partially agree) of respondents, this educational organization has created conditions for rest and meal for residents (rest rooms, benches/gazebos on the territory, buffet-dining room) during breaks between classes, but 22 % of students partially disagree with this statement. 82% of residents completely agree and 10% partially agree that office equipment is available to them in classrooms and practice areas. Teachers provide residents with methodological and didactic materials, additional literature to prepare for classes: 67% completely agree, 19% partially agree.

88% of respondents were completely satisfied and 9% were partially satisfied with access to student participation in research work. 64% of students are completely satisfied with the library collection and resources and 28% are partially satisfied. 76% of residents were completely satisfied with teaching methods, and 16% were partially satisfied. There is sufficient time for practical training (patients management, etc.): 87% completely agree, 10% partially agree. 81% of respondents are completely satisfied with the training schedule and 15% are partially satisfied. 87% of respondents were completely satisfied with the methods of assessing their knowledge and skills and 10% were partially satisfied. According to 65% of residents, teachers regularly use active and interactive teaching methods in classes, and 18% of students believe that sometimes. Among those surveyed, 72% expressed the opinion that teachers constantly provide feedback after completion of classes, 15% responded that sometimes. 82% are completely satisfied with studying at this educational organization, 10% are partially satisfied, 6% of respondents are disappointed, while 2% of residents did not give an exact answer.

89% of respondents are confident that this educational organization allows them to improve or acquire the necessary knowledge and skills in their chosen specialty. 60% of residents evaluate the organization of clinical training as excellent, 25% as good, 10% as satisfactory. The majority of residents (81%) completely agree that the teacher (mentor, curator) of this educational organization is an example for them as a professional physician, a person, while 16% responded that not all teachers of this organization are like that. 88% of respondents were completely satisfied with the number of patients to manage or assist in operations. The majority of respondents (78%) answered that they are currently engaged in research work and 10% are planning to start.

Results of a survey of teachers of the CF UMC residency programmes:

The total number of teachers under the list is 79. The total number of respondents is 50, including those with experience of up to 5 years – 28%, up to 10 years – 22%, over 10 years – 50%.

By specialty: therapeutic – 4%, pediatric – 36%, surgical – 12%, obstetrics and gynecology – 34%, other – 14%.

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

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

Among teachers, 30% studied in professional advanced training courses (programmes) less than one year ago, 28% of teachers - during this year, and 36% - more than three years ago. The microclimate in the staff of the division/branch/department/chair is satisfied by 66% of teachers, not satisfied by 12%, and quite satisfied by 10%. Slightly more than half of the respondents (54%) completely agree that they can realize themselves as professionals in this organization, and 44% partially agree. 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 requests for the purchase of methodological and didactic materials, office equipment and stationery to ensure the educational process in the organization are completed in a timely manner, 6% note a long wait for the request to be completed and 42% responded that they have nothing to do with this.

When asked whether the university supports teachers in participating in international and national events, 18% did not answer, 14% did not contact management about this, 20% find sponsors, 32% answered that the organization does not pay any expenses, and 12% noted that they are supported by payment of travel, trip allowances, registration fee, 4% - by payment only of travel. The majority of respondents (82%) strongly agreed and 14% somewhat agreed that residents have a free access to patients and clinic resources. During classes, teachers are required to have a syllabus and teaching materials (84%), cases (76%), control and measuring equipment (72%), and a training journal (58%). The level of previous training of residents upon admission to training programmes is fully satisfied by 20% of respondents, partially satisfied by 66%.

22% know about the implementation of social programmes to support teachers, 52% do not know, and 12% of respondents doubt their existence. According to 30% of respondents, the managers of the organization systematically listen to their opinion regarding questions on the educational process, research work, clinical work, 42% of teachers believe that sometimes, and 20% did not give an answer. When training residents, a variety of teaching methods are used, but more often oral analysis of the topic of the lesson (74%), lectures (72%), analysis of case problems (70%), practical classes on clinical skills in the educational and clinical center (62%), work in small groups (52%), oral questioning of students (52%), compilation and solution of cases (52%). 56% of respondents fully agree that this survey will be useful for developing recommendations for improving key areas of activity of this organization, 24% partially agree with this, and 16% find it difficult to answer.

The results of the survey are presented in the attachment and generally demonstrate the effective management of educational programmes, the positive aspects of training in residency programmes, while at the same time identifying areas for improvement (social support programmes for teachers, accessibility of management and administration for teachers and residents, pedagogical competencies and advanced training of teachers).

Conclusion based on the results of the external evaluation:

The EEC members carefully studied and assessed the main indicators of the accredited educational programme. The information received by external experts when studying the self-

assessment report, preparing a written review with recommendations for improvement, and implementing the activities of the CF UMC visit programme from 7 to 10.12.2020 was analyzed. All information received was compared with the data of the self-assessment report; the information was validated for each standard criterion of accreditation and verification of indicators in the attachment to the self-assessment report, which made it possible to verify the reliability of the information provided by CF UMC and supporting documents for compliance with the ECAQA Accreditation Standards.

Despite the fact that in the self-assessment report of the educational programme, CF UMC described its actual educational practice in postgraduate education. Before visiting the organization by accessing Google Drive https://drive.google.com/drive/folders/1FxOheU2F2_zbWaoYqbxjgmzvgM3rT8Oe?usp=sharing_eil&invite=CPCAYgN&ts=5fcf09db, experts reviewed more than 30 documents, and also during an external expert evaluation the EEC members studied the main documents (mission, strategic plan until 2023, teaching materials of disciplines, syllabuses, control and measurement tools, checklists, portfolios of residents, individual plans of residents for the 2019-2020 academic year, publications of teachers, rules for admission to residency, personnel policy, internal quality assurance system programme, training resources were reviewed directly at the clinical bases of the departments (classrooms, office equipment available for residents to work with literature, patient documentation, educational and methodological literature), residency resources on the website <http://umc.org.kz/?residency=post>, which made it possible to identify the compliance of the activities of the educational organization with 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 Healthcare of the Republic of Kazakhstan dated September 18, 2018 under No. ҚР ДСМ-16), paragraph 13. It was established that the clinical bases of all residency programmes are the four leading medical centers of the KF "UMC" - National Scientific Center for Motherhood and Childhood (NSCMC), National Center for Child Rehabilitation, Republican Diagnostic Center and a branch in Kyzylorda, which provide training at all levels of medical care (from primary medical specialized care to highly specialized). There are clinical bases for the accredited educational programme "**Medical Genetics**" - NSCMC. The volume of educational workload and treatment and preventive work in sections of specialties is determined by the individual work plan of the residency student (clause 14) for one year and is monitored by the resident's monthly reports in free form. Accounting for completed tasks is presented in the form of a portfolio in accordance with the recommendations in the syllabus.

In connection with the new edition of Order No.647 On approval of state mandatory standards and standard professional training programmes in medical and pharmaceutical specialties dated July 31, 2015 (as amended by Order of the Ministry of Healthcare of the Republic of Kazakhstan dated February 21, 2020 No.ҚР ДСМ-12/2020 Chapter 2. Requirements to the content of residency educational programmes with a focus on training outcomes), changes and additions have occurred in the educational programme regarding the development of research competence of residents who must participate in the work of the research team.

In this regard, experts assessed the involvement of residents in research work. There are no general regulations or requirements for carrying out scientific work at the university; at the same time, the departments conduct initiative research in which residents participate through writing reviews, collecting patient data, analyzing literature and patient examination results, preparing reports and speaking at conferences. Also, in accordance with Article 222 Residency clause 4 of the Code of the Republic of Kazakhstan "On the health of the people and the healthcare system" dated July 7, 2020 No. 360-VI LRK, external experts studied the activities and held conversations with resident mentors, and it was established that each resident is provided with mentor.

The experts took into account the fact that the accredited educational programme according to the current State Compulsory Educational Standard is implemented over 2 academic years, and currently there are 2 students graduating. All educational, methodological, personnel and resource bases have been assessed for compliance with accreditation standards. Through conversations with

teachers, it was possible to determine their direct participation in the development of the educational programme, evaluation of educational programmes, decision-making on a number of key issues in the selection of clinical bases, elective topics, participation in appeal commissions for admission and evaluation of residents, development of the content of individual resident plans and selection mentors.

At the same time, this justified the need to include in post-accreditation monitoring, along with the implementation of the EEC recommendations, an analysis of the implementation of the criteria of standard 9 and an annual report on the student population.

Recommendations for improving activities in the implementation of the residency educational programme in the specialty “**Medical Genetics**” for compliance with Accreditation Standards, developed by the EEC based on the results of an expert evaluation, were presented at a meeting with management on December 10, 2020.

The programme of the 3-day visit (December 7-10, 2020) of the external expert evaluation of the EEC has been fully completed. The CF UMC team ensured the participation of all persons specified in the programme.

Thus, the external evaluation 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 Regulations on the External Expert Commission, the Guidelines for the external evaluation of the ECAQA medical educational organization.

Comfortable conditions were created for the work of the EEC, and 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 the CF UMC employees responsible for postgraduate education, the department, employees of clinical bases, the high degree of openness of the team in providing information to the EEC members.

4. Analysis for compliance with accreditation standards based on the results of an external evaluation of the residency educational programme in the specialty “Medical Genetics” and a review of strengths for each standard.

Standard 1: MISSION AND OUTCOMES

The mission of the CF "UMC" was developed taking into account the analysis of the current situation in the healthcare sector of the Republic of Kazakhstan, as well as the prospects for the development of the CF "UMC" within the framework of the integrated academic healthcare system of Nazarbayev University. CF "UMC" is an academic medical center providing a high level of medical care, taking into account the synergy of research, educational and clinical activities. The CF "UMC" has created an effective scientific and educational environment, providing resident trainees with the opportunity to participate in research activities. The mission and vision of the CF "UMC" were developed taking into account the objectives of the CF "UMC" within the framework of the integrated academic healthcare system of Nazarbayev University and are reflected in the Development Strategy of the CF "UMC" for 2016-2020.

To implement these activities, funds from the special budget programme 024 “Targeted contribution to OJSC “Nazarbayev University” are used, within the framework of which, from 2016 to 2019, 3,080 employees of the CF «UMC» were trained in new medical and management technologies. Based on the results of the training, 84 new medical technologies were introduced over the indicated 4 years.

Based on the results of studying the self-assessment report and the external visit, within the framework of the educational programme “Medical Genetics”, the mission of the residency educational programme in this specialty should be developed.

Strengths:

1. Construction of residency training taking into account the integration of education-clinic-science in the context of the introduction of modern principles of training specialists for healthcare;

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 the criteria. Compliant with 17 standards: fully - 13, significantly - 4, partially - 0, not compliant - 0.

Standard 1: implemented

Recommendations for improvement identified during the external visit:

- 1) When developing and approving the mission and strategic development plan of the organization, involve representatives of stakeholders more widely and document this process (1.4.1, 1.4.2).
- 2) The strategic directions on the website and in the self-assessment report should be identical (1.1.1).
- 3) Strengthen awareness of stakeholders and potential applicants about «Medical Genetics» programme (1.1.2)
- 4) Justification for the need for personnel training, taking into account the population size in the specialty of the accredited educational programme (1.3.1)

Standard 2: EDUCATIONAL PROGRAMMES

The educational programme of the residency of CF "UMC" in the specialty "Medical Genetics" was developed based on the standard programme of the Ministry of Healthcare of the Republic of Kazakhstan, as well as taking into account the principles and approaches of the best international practice in the training of healthcare specialists. The main points in the educational programme in the specialty "Medical Genetics" are the study of the latest achievements of medical and clinical genetics, the development and active use of previously acquired theoretical knowledge in genetics in clinical practice, replenishment of knowledge in medical and clinical genetics, modern problems of diagnosis, treatment and prevention of hereditary pathologies, study of nosological forms of hereditary and congenital pathologies.

Since the beginning of 2017, CF "UMC" has been holding journal clubs on a regular basis, which are a mandatory part of the educational process of the CF "UMC" residency programme. The organization of the educational process in residency is carried out based on the academic calendar, training schedule and work study programmes. Residency training includes classroom work, clinical work under the guidance of clinical mentors and independent student work .

According to the 2015 State Compulsory Educational Standard, rotations in the EP "**Medical Genetics**" included the following disciplines: "Molecular biology and fundamentals of medical genetics", "Research methods in medical genetics", "Medical genetic counseling", "Chromosomal diseases", "Gene and genomic diseases", "Diseases with hereditary predisposition".

There is international cooperation with the Charite Clinic (Germany) and the Rambam Clinic, Institute of Genetics (Israel) on the topic "Mutational analysis of the NLRP3 gene in children with cryopyrin-associated fevers."

Strengths:

1. A wide range of specialties of residency educational programmes and demand among potential students;

2. Implementation of educational programmes at relevant JCI-accredited clinical bases;

3. Use of a variety of teaching methods.

Conclusions of the EEC by the criteria. Compliant with 31 standards: fully - 27, significantly - 3, partially - 1, not compliant - 0.

Standard 2: implemented

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 11.07.97 under No. 151-I On the languages of the Republic of Kazakhstan (as amended and supplemented as of 24.05.18).

2) Ensure the participation of all stakeholders in the development of the educational programme (residents, clinical mentors, employers, graduates, representatives of professional associations).

3) Bring the content of the programme and the entire complex of teaching materials in accordance with the State Compulsory Educational Standard 2020 (2.1.2, 2.4.2)

4) Include in the training programme on the basics of medical genetics, taking into account the lack of relevant disciplines and topics in bachelor's degree education (2.3.4), "Epigenetic regulation of gene expression in health and disease" (2.3.1), add "interpretation of data of the results of bioinformation analysis" under full exome and whole genome sequencing (2.3.1), add the use of practice-oriented training taking into account the characteristics of the patients' genotype, the possibility of adjusting treatment (2.4.2)

5) Provide for the possibility of improving the pedagogical qualifications of teaching staff in foreign universities and scientific organizations (2.5.3), include information about the implementation of part of the programme in medical genetics in foreign organizations in order to inform about international cooperation with foreign partners (2.6.3).

Standard 3: RESIDENT ASSESSMENT

According to the current Rules, students are provided with a reference guide for the entire period of study, a syllabus for the discipline, which also describes the principles and methods of assessing residents.

Assessment of the educational achievements of students is carried out based on an assessment of the level of competencies developed by the teacher together with the sectors of science and education of the CF "UMC" centers in various forms: test questions, tasks in test form, a list of practical skills, case problems, assessment of the mastery level of a specific manipulations by a resident-trainee, tasks for laboratory and other work.

Monitoring and internal control of the quality of teaching and educational achievements of students is carried out through current, interim, end-of-course assessment in the discipline and is focused on training outcomes. The academic achievements of a resident-trainee are assessed on a 100-point scale corresponding to the letter system accepted in international practice with a digital equivalent on a 4-point scale, which is recorded by the science and education sector of the CF "UMC" centers. To assess knowledge, the following control and measurement tools are used: tests, oral questioning, case problems, practicing practical skills at the patient's bedside.

During the external visit, documentation reflecting the educational achievements of the resident - a portfolio of a resident-trainee, a journal of attendance and academic performance, assessment forms (summative, formative), survey results, a report on the implementation of the RW calendar plan, publications were examined.

Based on the results of studying the self-assessment report, specific information (approaches, methods, tools) for assessing residents in the accredited programme should be provided.

Strengths:

1. Assessment of students' educational achievements is carried out using criteria, regulations and procedures developed in accordance with the goals and objectives set for the implementation of the educational programme;

2. Skills are assessed using summative assessment forms to promote integrated learning and engagement in practical clinical work.

Conclusions of the EEC by the criteria compliant with 11 standards: fully - 6, significantly - 4, partially - 1, not compliant - 0.

Standard 3: implemented

Recommendations for improvement identified during the external visit:

1) Provide for regular analysis and assessment of the quality of the assessment methods and formats used for validity and reliability in relation to the established training outcomes and carry out documentation (3.1.4, 3.1.6);

2) Consider the possibility of optimizing the documentation of student knowledge assessment (introducing an electronic journal) and organizing training for teachers in maintaining this documentation.

3) Ensure the publication of materials for residents on the website (update links) (3.1.2), reflect in the report the specifics (approaches, methods, tools) of assessing residents in the accredited programme (3.1.4)

Standard 4: RESIDENTS

Persons who have completed educational programmes of higher education are accepted into residency. The admission procedure, selection of applicants and enrollment in residency are carried out in accordance with the Rules for admission to residency. The National Center for Independent Examination is involved in conducting entrance exams; the content of the exams is formed based on the standard curricula for the specialty of higher medical education.

The number of applicants admitted to the residency programme of the CF "UMC" is regulated by the state educational order of the Ministry of Healthcare of the Republic of Kazakhstan for the training of medical personnel and the material, technical, educational and methodological capabilities of the CF "UMC". In the specialty "Medical Genetics" in 2018-19, 4 residents studied under state orders, in 2019-20 - 2 residents on a paid basis. Local executive bodies take part in providing grants for residency students. In 2019, 1 resident trainee entered the residency programme of the CF "UMC" in the specialty "Medical Genetics" at the expense of local executive bodies.

Residents participate in regular meetings of journal clubs and Grand rounds, topics for discussion at which are provided by the students themselves based on issues that interest them in the department. Every year, at the end of the academic year, a "360-degree survey" is conducted, the participants of which are resident trainees of all years of study, curators, supervising doctors, teachers and patients of resident trainees. The results of the survey are announced at the EMC meeting.

CF "UMC" provides support in obtaining foreign educational/research grants to residents based on their interests. In the specialty "Medical Genetics", student of 2nd years of study, Tolegen Nazym was nominated by a grant from the NIH for an internship within the framework of the International Summit in Human Genetics and Genomics, Maryland, USA.

According to the Rules for the Organization of the Educational Process, residents have the opportunity to participate in the organization of training through group leaders and senior resident trainees. A 2-year resident trainee in the specialty "Medical Genetics" was included in the working group to prepare for institutional accreditation of the CF "UMC". In the specialty "Medical Genetics" the annual employment rate is on average 100%.

Strengths:

1. Compliance with the standard rules for the admission of residents, taking into account the internal requirements for training at the CF UMC;

2. Involvement of students in the work of consultative and advisory bodies to participate in decision-making regarding the educational programme;

3. Residents have the opportunity to see rare defects, different nosologies, participate in training events with the participation of leading foreign experts and participate in foreign internships on the basis of strategic partners.

Conclusions of the EEC by the criteria. Compliant with 30 standards: fully - 26, significantly - 4, partially - 0, not compliant - 0

Standard 4: implemented

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).

2) The link “Rules for admission to residency” must be active (4.1.3, 4.1.4), reflect in the report the specifics of the selection and recruitment of residents for the accredited programme (4.1.6)

3) Include information on activities to improve the leadership, management and communication skills of residents of the accredited educational programme, their involvement in management processes, decision-making, programme discussion and learning trajectories.

Standard 5: ACADEMIC STAFF/TEACHERS

For teachers working at clinical bases of medical organizations, a mandatory condition is the presence 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. The number and composition of teaching staff are planned based on the needs of the educational process, the standard academic load per teacher and student population. The work of the curator is determined at the rate of 3 hours per week per resident, one curator leads no more than 3 resident trainees at the same time.

Teachers of the educational programme “Medical Genetics” are physicians of the Department of Clinical and Genetic Diagnostics of the NSCMC. The head of the department is a candidate of medical sciences, a geneticist, 25 years of work experience in the field of medical genetics, completed a scientific internship in the specialty “Molecular Oncology” at the Charité-Universitätsmedizin Berlin-Department of Hematology, Oncology and Tumor Immunology.

The assessment of the teaching staff's activities is carried out on the basis of the "Evaluation 360" questionnaire, based on the results of which the teaching staff and curators of the CF «UMC» are awarded based on the results of educational and scientific activities in the nominations specified in section 5.1.3.

The list of teaching staff and clinical mentors is agreed upon by the Educational and Methodological Council of the CF "UMC", approved by order of the CF "UMC". The rules for the appointment of curators, the procedure for agreeing on the composition are specified in the Rules for organizing the educational process in the residency of the CF "UMC".

Strengths:

1. Highly qualified teaching staff from among clinical professionals;
2. Policy for selection and recruitment of teachers;
3. System of clinical mentoring of residents;
4. A programme for the development of pedagogical competencies and organizers of educational programmes, which provides the opportunity to improve the qualifications of teaching staff in foreign scientific and clinical centers, as well as the opportunity to attract foreign mentors to the clinics of the CF “UMC”;

Conclusions of the EEC by the criteria. Compliant with 7 standards: fully - 5, significantly - 2, partially - 0, not compliant - 0.

Standard 5: implemented

Recommendations for improvement identified during the external visit:

1) Expand training opportunities for employees (teachers and managers) involved in the educational process on methodology and active teaching methods (5.2.4).

2) Improve the system of motivation for teachers through financial incentives (5.2.4).

3) Include in the self-assessment report a qualitative description of the teaching staff in the «medical genetics» educational programme, indicating work experience, achievements and participation in research work, in management and decision-making processes, discussion of the programme (for example, in the composition of the EMC).

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 tools, a simulation class, clinical bases. At CF "UMC", training of resident trainees is carried out on the basis of 3 medical centers accredited by the JCI international commission.

Every year, when planning and forming the annual budget for 006 RBP, a request is sent to the departments of the CF "UMC" centers, teachers involved in the training of resident trainees to provide for the purchase of a list of necessary training equipment, educational literature in the context of residency specialties. To obtain feedback from resident trainees, the "Residency Programme Evaluation" questionnaire has been introduced.

As part of the implementation of the educational programme in medical genetics, CF UMC closely cooperates with the National Center for Biotechnology and "National Laboratory Astana" of Nazarbayev University, with Ariel University, Israel.

The library fund is 5813 units, there is direct access to the Republican Scientific and Technical Medical Library, JSC "National Center for Scientific and Technical Information". The total area of the libraries of the CF "UMC" is 324.67 sq.m., which is 2.4 sq.m. per student.

The main clinical base for the residency programme in the specialty "Medical Genetics" is the National Scientific Center for Motherhood and Childhood, which is a large multidisciplinary hospital in which the entire range of educational resources is concentrated, allowing for a full-fledged educational process. Skills in genetic laboratory methods are provided in the departments of pediatric neurology, rheumatology, somatics and orthopedics; skills in conducting medical and genetic counseling of children - in the clinical block of the NSCMC, in clinical pediatric departments. During the external visit of the NSCMC, a visit was made to the structural subdivisions of the center. The presence of JCI international accreditation indicates the compliance of the clinical base, material and technical equipment with international standards.

Strengths:

1. Modern clinical base for training residents and international cooperation with a strategic partner - the medical school of the University of Pittsburgh;
2. Providing the educational process with appropriate medical equipment and access to clinical resources of practice bases;
3. Support of educational programmes with relevant 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 the criteria. Compliant with 21 standards: fully - 17, significantly - 4, partially - 0, not compliant - 0

Standard 6: implemented

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) Promote the further expansion of international cooperation within the framework of joint scientific research with the involvement of residents.
- 3) The educational and methodological council must prescribe a work plan, reporting documentation (6.6.1)
- 4) Include in the self-assessment report a description of library resources for a specific training programme, including electronic databases and access to professional resources in medical genetics (6.3.3), information on national and international cooperation of the CF UMC in the implementation of the educational programme in medical genetics and their effectiveness (6.7.3).

Standard 7: EDUCATIONAL PROGRAMME EVALUATION

To monitor the implementation of the educational programme and as emerging problems are identified, the following documents have been approved and updated at CF "UMC":

- Rules for organizing the educational process in residency
- Rules for admission to residency
- Requirements for the content, design and protection of IR for the residency programme
- Regulations on the educational and methodological council.

The Department of Science and Education organizes and controls educational events, monitors the implementation of innovative educational technologies and promising forms of organizing the

educational process, and also develops recommendations for improving the educational process, taking into account identified achievements and comments.

Every year, at the meetings of the EMC, students' annual reports and the results of the annual interim assessment are heard, based on the results of which conclusions are drawn on the development of residents' competencies. The results of feedback and "360-degree Analysis" are discussed at meetings of the EMC and decisions are made on further corrective actions. The survey includes residents-trainees, teaching staff, supervisors, patients and supervising physicians. Analysis of the results of the "Evaluation 360" survey of residents, clinical mentors, residency teachers and supervising physicians is considered at a meeting of the Educational and Methodological Council of the CF "UMC", where the results of the survey are discussed and areas for improvement are identified. At the end of the year, awards are given based on the results of educational activities based on the assessment results. The award based on the results of educational activities is motivational in nature and is aimed at improving the level of interest of clinicians in training residents.

As part of an anonymous survey, individual comments were received on the implementation of mandatory research projects within the residency programme: lack of time, knowledge of research management, should be voluntary instead of mandatory.

Based on the results of the "360-degree Analysis", residents believe that all teachers of specialized disciplines in the specialty "Medical Genetics" have high-level medical knowledge and demonstrate professionalism in the training process.

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 demand for programme graduates;

2. Actively applied feedback from students and teachers;

3. 360⁰ type assessment

Conclusions of the EEC by the criteria. Compliant with 15 standards: fully - 7, significantly - 8, partially - 0, not compliant - 0.

Standard 7: implemented

Recommendations for improvement identified during the external visit:

1) Improve the feedback system by regularly monitoring and analyzing the data received, including special questions in the 3600 survey, reflecting the specifics of specialties and use the survey results to improve educational programmes.

2) The results of the assessment should be documented and available to all stakeholders (7.1.6). Describe in the report approaches to informing the results of the assessment of the clinical practice of residents and graduates to those responsible for admitting residents (admissions committee) and planning the educational programme (EMC, Department of Education).

3) It is necessary to provide information on the results of monitoring the educational programme by stakeholders (7.3, 7.4.1, 7.4.2), as well as monitoring of clinical bases using developed indicators (7.5.2).

Standard 8: MANAGEMENT AND ADMINISTRATION

Management of the educational process is carried out by the Department of Science and Education of the CF "UMC". The results of academic activities, the effectiveness of modern forms of management of the educational process, prospects for further improvement of management and improving the quality of education are considered and discussed in the final reports of the Chairperson of the Board and heads of key structural subdivisions.

The Educational and Methodological Council, which is the main consultative and advisory body on issues of educational, methodological and organizational support for the educational process in the center, manages the educational process. The CF "UMC" periodically reviews and approves the Rules of Education at the CF "UMC", which detail the rights, duties and responsibilities of students and the administration of the CF "UMC", the procedure for organizing the educational process.

CF "UMC" has developed documents defining the terms of reference and authority in relation to the residency educational programme, regulations for each subdivision, defining the structure, management and accountability, goals, objectives and functions of structural subdivisions, as well as job descriptions for each position provided for in the staffing table.

The official website of the CF "UMC" provides information on residency educational programmes: information for applicants, class schedule, academic calendar, catalog of elective disciplines, syllabuses, etc., which ensures accessibility and transparency of the educational process. To quickly receive information by teachers and students, there is an internal corporate mail of the CF «UMC», a WhatsApp chat, which includes all group leaders.

The Quality Management and Patient Safety Department of CF "UMC" coordinates the internal quality assurance system based on internal audits in centers and tracers in accordance with international JCI requirements.

The budget of the CF "UMC" is formed from several sources: the republican budget (state order for training personnel in postgraduate education, advanced training of medical workers, development of scientific research, transfers); local budget; provision of paid educational and other services.

During the external visit, presentations from the administration were heard and the documentation of the EMC was studied.

Strengths:

1. Transparency in the management of the educational programme;
2. Awareness of participants in the educational process through posting information about the educational programme on the website of the CF "UMC";
3. The financial and economic activities of CF "UMC" are aimed at ensuring financial stability;
4. Ensuring the efficient use of financial resources.

Conclusions of the EEC by the criteria. Compliant with 15 standards: fully - 11, significantly - 3, partially - 1, not compliant - 0

Standard 8: implemented

Recommendations for improvement identified during the external visit:

- 1) Develop an academic integrity policy and ensure the use of an anti-plagiarism programme (8.3.3).
- 2) Improve the management and financing mechanisms of the center to increase the motivation of teachers implementing the educational process in residency specialties (8.3.2, 8.4.1).
- 3) The results of the management review to achieve improvement in the quality of education are not presented (8.4.3)
- 4) Widespread use of ITI capabilities in the residency programme (8.4.1).

Thus, all 8 accreditation standards have been met; no inconsistencies in fulfilling the criteria of each of the basic accreditation standards were found in the process of analyzing the self-assessment report and conducting the examination as part of the tasks of the external expert evaluation programme.

5. Recommendations for improving educational residency in the specialty "Medical Genetics"

- 1) When developing and approving the mission and strategic development plan of the organization, involve representatives of stakeholders more widely and document this process (1.4.1, 1.4.2).
- 2) Strategic directions on the website and in the self-assessment report should be identical (1.1.1), increase awareness of the stakeholders and potential applicants in the «Medical Genetics» programme (1.1.2)
- 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

11.07.97 under No.151-I “On the languages of the Republic of Kazakhstan” (with amendments and additions as of 24.05.18).

4) Ensure the participation of all stakeholders in the development of the educational programme (residents, clinical mentors, employers, graduates, representatives of professional associations).

5) Consider the possibility of optimizing the documentation of student knowledge assessment (introducing an electronic journal) and organizing training for teachers in maintaining this documentation.

6) Include in the training programme on the basics of medical genetics (2.3.4), “Epigenetic regulation of gene expression in health and disease” (2.3.1), the skills of “interpretation of data from the results of bioinformatic analysis” during whole-exome and whole-genome sequencing (2.3.1), the use of practice-oriented training taking into account the characteristics of the patients’ genotype, the possibility of adjusting treatment (2.4.2)

7) Provide for the possibility of improving the pedagogical qualifications of teaching staff in foreign universities and scientific organizations (2.5.3, 5.2.4), include information on the implementation of part of the programme in medical genetics in foreign organizations (2.6.3, 6.7.3).

8) Provide for regular analysis and assessment of the quality of the assessment methods and formats used for validity and reliability in relation to the established training outcomes and carry out documentation (3.1.4, 3.1.6); ensure the publication of materials for residents on the website (update links) (3.1.2); reflect in the report the specifics (approaches, methods, tools) of assessing residents in the accredited programme (3.1.4). The results of the assessment shall be documented and available to all interested parties (7.1.6).

9) Expand opportunities for distance learning or other training formats to provide residents with additional training (4.5.4, 6.1.2).

10) Improve the system of motivation for teachers through financial incentives (5.2.4). Include in the self-assessment report a qualitative description of the teaching staff in «medical genetics» educational programme, indicating work experience, achievements and participation in research, in management and decision-making processes, discussion of the programme (for example, in the composition of the EMC).

11) Improve the feedback system by regularly monitoring and analyzing the data received, including special questions in the 360⁰ survey, reflecting the specifics of specialties, and use the survey results to improve educational programmes.

12) Develop an academic integrity policy and ensure the use of an anti-plagiarism programme (8.3.3).

13) Improve the management and financing mechanisms of the center to increase the motivation of teachers implementing the educational process in residency specialties (8.3.2, 8.4.1), present the results of a management review to achieve improved quality of education (8.4.3).

6. Recommendation to the ECAQA Accreditation Council

The EEC members came to a unanimous opinion to recommend that the Accreditation Council accredit the educational programme 6R114500 “Medical genetics” of CF UMC for a period of 5 years.

Chairperson

MORENKO MARINA ALEXEYEVNA

/signed/



Foreign expert

IVANA OBORNA

/signed/



Foreign expert

ZINCHENKO RENA ABULFAZOVNA

/signed/



Academic expert

KURMANOVA ALMAGUL MEDEUBAYEVNA


/signed/



Academic expert

YESSENKULOVA SAULE ASKEROVNA

/signed/



Academic expert

RAMAZANOVA SHOLPAN KHAMZAYEVNA

/signed/



Academic expert

KALIYEVA SHOLPAN SABATAYEVNA

/signed/



Academic expert

SADIYEVA ZHANAR ZAMANKHANOVNA

/signed/



Academic expert

DZHAMANTAYEVA BOTAGOZ DAUKIMOVNA

/signed/



Academic expert

BEISEBAYEV YELDAR NURLANOVICH

/signed/



Observer from ECAQA

SARSENBAYEVA DARIYABANU BULATOVNA

/signed/



**Quality profile and external evaluation criteria (generalization)
of the educational programme in the specialty
“Medical Genetics” of the CF UMC**

Standard	Criteria for evaluation Number of standards = BS*/IS	Evaluation			
		Fully compliant	Substantially compliant	Partially compliant	Not compliant
1.	MISSION AND OUTCOMES 17 = 10/7	13	4	0	
2.	EDUCATIONAL PROGRAMme 31 = 22/9	27	3	1	
3.	RESIDENT ASSESSMENT 11 = 7/4	6	4	1	
4.	RESIDENTS 30 = 18/12	26	4	0	
5.	ACADEMIC STAFF/TEACHERS 7 = 5/2	5	2	0	
6.	EDUCATIONAL RESOURCES 21 = 10/11	17	4	0	
7.	EDUCATIONAL PROGRAMME EVALUATION 15 = 10/5	7	8	0	
8.	MANAGEMENT AND ADMINISTRATION 15 = 8/7	11	3	1	
	Total: 147 = 90/57	112	32	3	
		147			

* BS - basic standard must be completed by each medical educational organization, and completion must be demonstrated during an external evaluation of the medical educational and scientific organization.

List of documents requested by EEC members as part of accreditation

No.	Name of document	Date of approval
1.	Questionnaire forms "Evaluation 360 ⁰ " by specialty	Protocol of EMC No.6 dated November 22, 2016
2.	Duty schedule	Monthly
3.	Job descriptions of the Foundation's medical workers	Different periods for each medical worker
4.	Resident job description	10.10.2016 EMC protocol No.5
5.	Job descriptions of DSE employees	03.03.2020
6.	Catalog of elective disciplines	Protocol 10 dated 02.09.2020
7.	Mission of the Foundation and development strategy	2019
8.	Residency educational programmes	2016, 2018 and 2020
9.	Agreements and memorandums: agreements with clinical bases, agreements with residents, Memorandums of cooperation	From 2016 to 2020
10.	Research work of residents	30.05.2017 protocol No. 5
11.	Code of Conduct	30.12.2015 Minutes of the Board No.3
12.	Evaluation Forms	2016-17
13.	Regulations on clinical academic departments	19.06.2020, No.12
14.	Regulations on the Department of Science and Education	29.10.2018, No.26
15.	Regulations of other Departments	
16.	Portfolio of residents, personal file of residents	
17.	Rules for organizing the educational process of residency at CF "UMC"	15.02.2018
18.	Rules for search, selection, hiring and attestation of employees in CF UMC	19.11.2015
19.	Rules for search, hiring, selection and attestation of employees of the Foundation	19.11.2015 with changes dated 2016, 2018
20.	Rules for admission to residency	2018, with changes from 2019
21.	Orders	From 2016-2020
22.	Work training programmes for all residency specialties	2016-17, 2018, 2020
23.	Working curriculum	From 2017-2020
24.	Schedule	2016-2020
25.	Syllabuses	2016-17, 2018, 2020
26.	Residents' lecture attendance journal	1.09-12.09.2020
27.	Resident duty schedule	09.2020, 12.2020
28.	Educational and methodological council	Protocols from 2016 to 2020
29.	Materials of the educational and methodological council	For 2019, 2020
30.	Staffing table	NSCMC – 30.11.20, RDC – 30.11.20, AMP – December 2020
31.	Operational plan for strategy implementation	27.03.2020

32.	Regulations on teaching staff	Protocol 9 dated 28.08.2019
33.	Charter of the Foundation (as amended)	12.05.2020
34.	Instruction checklist for internal training	
35.	State Compulsory Educational Standard	2015 and 2020
36.	Mission of CF "UMC"	2019
37.	Documents of the Educational and Methodological Council	06.11.2020
38.	Regulations on the Journal Club	28.04.2018 No.2
39.	A guidebook for applicants and residency students	2020
40.	List of residents	
41.	Residency budget for 2020	2020
42.	Quality management programme of NSCMC and RDC	
43.	Employer questionnaire form	2020
44.	List of resident privileges Zhakupova A.B. specialty "O&G"	2020-2023
45.	Scientific works of residents: Pediatrics: Aidybayeva K.A. Nurmukhanova A.S. O&G: Aitbayeva B.N., Yergaliyev I.D.	2019 2020
46.	Certificates in PC in clinical pharmacology – Gurtskaya G.M., Zhetimkarimovna Gaukhar	2015, 2017, 2017
47.	List of scientific publications of teacher Gurchka G.M.	2016
48.	Certificates for successful completion of the seminar course “Methodology for developing examination material” for assessing the key competencies of students.”	14 pcs. dated November 24, 2020 NCIE
49.	Certificates of participation of CF UMC employees (pediatric surgeons, radiologists) in international conferences	2019, India (1) 2019, Italy (5) 2019, Moscow (1) 2019 Minsk (2)
50.	Certificates/Evidences PC “Methodology for developing result-oriented image programmes” 54 hours	2 pcs. dated November 18, 2019 CF UMC
51.	Examination materials for all specialties	2017-2018
52.	Interim assessment results	2017-2018
53.	Reports and tests for all specialties	2017-2018
54.	Journal Club Minutes (36) Obstetrics and gynecology – 10 reports Medical genetics – 2 reports Pediatrics – 1 report Neurology – 1 report	For 2016-2018
55.	Library attendance journal	2019-2020
56.	Information board in the simulation center	