To the Accreditation Council of the Eurasian Centre for Accreditation and Quality Assurance in Education and Healthcare December 12, 2023

#### **REPORT**

OF AN EXTERNAL EXPERT COMMISSION ON THE RESULTS OF THE INSTITUTIONAL EVALUATION OF THE CORPORATE FOUNDATION

"UNIVERSITY MEDICAL CENTER"
FOR COMPLIANCE WITH INSTITUTIONAL ACCREDITATION
STANDARDS OF MEDICAL ORGANIZATIONS OF POSTGRADUATE AND
ADDITIONAL EDUCATION (CONTINUOUS PROFESSIONAL
DEVELOPMENT)

External expert evaluation period: November 28-30, 2023

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#### LIST OF SYMBOLS AND ABBREVIATIONS

Abbreviation	Designation
AMP	Administrative and management personnel
SCES	State Compulsory Educational Standard
DET	Distance educational technologies
DES	Department of Science and Education of the Corporate Foundation "University Medical Center"
ECAQA	Eurasian Centre for Accreditation and Quality Assurance in Education and Healthcare
IEP	Individual educational curriculum
CF "UMC"	Corporate Foundation "University Medical Centre"
CED	Catalog of elective disciplines
MOH RK	Ministry of Health of the Republic of Kazakhstan
MSHE	Ministry of Science and Higher Education
RW	Research work
NSCMC	National Scientific Centre for Motherhood and Childhood
NSCOT	National Scientific Centre for Oncology and Transplantology
NCCR	National Centre for Children's Rehabilitation
EP	Educational programs
PE	Postgraduate education
CDP	Continuous professional development
Academic staff	Academic staff
RDC	Republican Diagnostic Center
WC	Working curriculum
QMS	Quality Management System
EMCD	Educational and methodological complexes of disciplines
EMC	Educational and methodological advice
JCI	Joint commission international
UPMC	University of Pittsburgh Medical Centre
NUSM	Nazarbayev University School of Medicine

#### 1. Composition of the External Expert Commission

In accordance with ECAQA Order No. 26 dated November 8, 2023, an External Expert Commission (hereinafter referred to as the EEC) was formed to conduct an external institutional evaluation of the Corporate Foundation "UMC" (hereinafter referred to as the educational organization) during the period November 28-30, 2023, consisting of the following members:

No	Status as part of	Full name	Academic degree/title, position, place
	the EEC		of work/place of study, course,
			specialty
1	Chairman	Turgunov Yermek Meiramovich	Doctor of Medical Sciences, Professor, Vice-Rector for Scientific and Clinical Work of the NJSC "Medical University of Karaganda", member of the International Surgery Society, member of the Astana Association of Independent Experts.
2	International expert	Ziganshina Liliya Yevgenevna	Doctor of Medical Sciences, Professor of the Department of Epidemiology of the Russian Medical Academy of Continuing Professional Education, Director of Cochrane Russia, Member of the WHO Committee on the Selection and Use of Essential Medicines. Laureate of the State Prize of the Republic of Tatarstan in the field of science and technology
3	International expert	Saatova Guli Mirakhmatovna	Doctor of Medical Sciences, Professor, Head of the Department of Cardio Rheumatology of the Institution "National Centre for Maternal and Child Health" of the Ministry of Health of the Kyrgyz Republic (MHKR), Chief Rheumatologist of the Ministry of Health of the Kyrgyz Republic, Vice-President of the Association of Rheumatologists of Central Asia and Kazakhstan
4	Academic expert	Zhantelieva Lyazzat Asanovna,	Doctor of Medical Sciences, Deputy Chairman of the Board for Research JSC Scientific Centre of Urology named after. B.U.Dzharbusynov"
5	Academic expert	Madyarov Valentin Manarbekovich	Doctor of Medical Sciences, Head of the Department of Surgery with a course of anaesthesiology and resuscitation National Educational Institution "Kazakhstan-Russian Medical University"
6	Academic expert	Idrisov Alisher Saugabaevich	Doctor of Medical Sciences, Associate Professor of the Department of Family Medicine No. 2

			NJSC "Astana Medical University"
7	Academic expert	Ramazanova Sholpan Khamzaevna	Candidate of Medical Sciences, Associate Professor of the Department of Childhood Diseases named after N.A. Barlybaeva NJSC "Kazakh National Medical University named after S.D. Asfendiyarov"
8	Academic expert	Dolmatova Irina Anatolyevna	Doctor of Medical Sciences, acting Professor of the Department of Ophthalmology of the National Educational Institution "Kazakhstan- Russian Medical University"
9	Academic expert	Arinova Saule Pasevnoevna	Candidate of Medical Sciences, Professor of the Department of Surgical Diseases NJSC "Medical University of Karaganda"
10	Academic expert	Karibaeva Dina Orynbasarovna	Candidate of Medical Sciences, Associate Professor of the Department fundamental medicine Kazakh National University named after Al-Farabi
11	Academic expert	Apbasova Saulesh Akhatovna	Candidate of Medical Sciences, assistant Department of Pathological Anatomy and Forensic Medicine named after Professor Pruglo Yu.V. NJSC "Semey Medical University"
12	Academic expert	Menchisheva Yulia Alexandrovna	PhD in Medicine, Head of Department surgical dentistry NJSC "Kazakh national medical university named after S.D. Asfendiyarov"
13	Resident expert	Yerkinov Yerbolat	first year resident in specialty "Angiosurgery, including children's" LLP "National Scientific Oncology Centre".
14	Resident expert	Orynbay Aizere Sauletkyzy	resident of the second year of study in the specialty "General Surgery" of the NJSC "Astana Medical University"

The EEC report includes a description of the results and conclusion of an external evaluation of the educational organization for compliance with the Standards of institutional accreditation of medical organizations of postgraduate and additional education (continuing professional development) (hereinafter referred to as the Accreditation Standards), recommendations of the EEC for further improvement of quality and recommendations for the accreditation of an educational organization for the ECAQA Accreditation Council .

2. General part of the final report2.1 Presentation of the corporate foundation "University Medical Centre"

	ate foundation "University Medical Centre"
Name of organization, legal form of	
ownership, BIN	151 040 018 391
Management Body	Governing body
Full name of the first manager	Pya Yuri Vladimirovich
Date of creation	2015
Location and contact details	Astana, st. Kerey and Zhanibek khandary, 5/1,
	8 (7172) 69-26-39, Madina.Agdarbekova@umc.org.kz
	8 (7172) 69-25-26, <u>a.muftalova@umc.org.kz</u>
	8 (7172) 69-25-13, kerimkulova.aigerim@umc.org.kz
State license for educational	Conducting educational programs without a license for
activities in residency (date, number)	educational activities, on the basis of the Law "On the
activities in residency (date, number)	status of "Nazarbayev University", "Nazarbayev
Information about branches,	Intellectual Schools" and "Nazarbayev Foundation"
Information about branches, subsidiaries (if any)	Shymkent Heart Center
	Obstatuing and expressed any for adults, shildren 2012
	Obstetrics and gynaecology for adults, children – 2013
accredited educational program (EP)	Allergology and immunology for adults, children – 2021
	Anaesthesiology and resuscitation for adults, children –
	2014
	Paediatric surgery – 2013
	Clinical Pharmacology – 2021
	Medical genetics – 2015
	Neurology for adults, children – 2016
	Neonatology – 2014
	Nephrology for adults, children – 2017
	General surgery – 2022
	Paediatric oncology and haematology – 2016
	Otorhinolaryngology for adults, children – 2023
	Ophthalmology for adults, children – 2023
	Pathological Anatomy – 2021
	Paediatrics - 2014
	Radiology – 2015
	Rheumatology for adults, children – 2022
	Traumatology – orthopaedics for adults, children – 2016
	Urology and andrology for adults, children – 2023
	Maxillofacial surgery for adults, children – 2022
	Endocrinology for adults, children – 2021
Duration of training	Obstetrics and gynaecology for adults, children – 3 years
	Allergology and immunology for adults, children – 2
	years
	Anaesthesiology and resuscitation for adults, children – 3
	years
	Paediatric surgery – 3 years
	Clinical pharmacology – 2 years
	Medical genetics – 2 years
	Neurology for adults, children – 2 years
	Neonatology – 2 years
	Nephrology for adults, children – 2 years
	General surgery – 3 years
	- Carrier Surgery - Jenie

Paediatric oncology and haematology – 2 years Otorhinolaryngology for adults, children – 3 years Ophthalmology for adults, children – 3 years	
± ± ± ;	
Pathological anatomy – 2 years	
Paediatrics – 2 years	
Radiology – 2 years	
Rheumatology for adults, children – 2 years	
Traumatology – orthopaedics for adults, children	en – 3
	JII 3
years	
Urology and andrology for adults, children – 3 year	
Maxillofacial surgery for adults, children – 3 years	
Endocrinology for adults, children – 2 years	
Total number of graduates since the Obstetrics and gynaecology, adults, children	- 61
beginning of the EP implementation graduates	
Allergology and immunology for adults, children	an 3
9 9,	5II — J
graduates	
Anaesthesiology and resuscitation for adults, chi	ldren –
12 graduates	
Paediatric surgery – 15 graduates	
Clinical pharmacology – 1 graduate	
Medical genetics – 14 graduates	
Neurology for adults, children – 17 graduates	
Neonatology – 31 graduates	
Nephrology for adults, children – 3 graduates	
General Surgery – not yet released	
Paediatric oncology and haematology – 24 graduat	es
Otorhinolaryngology for adults, children – no issue	
Ophthalmology for adults, children - no issue yet	jet
Pathological anatomy – 1 graduate	
Paediatrics – 21 graduates	
Radiology – 31 graduates	
Rheumatology for adults, children – no release yet	
Traumatology – adult or paediatric orthopaedie	cs – 7
graduates	
Urology and andrology for adults, children –	not wet
	not yet
published	
Maxillofacial surgery for adults, children – r	ot yet
released	
Endocrinology for adults, children – 2 graduates	
Number of residents in the EP since Obstetrics and gynaecology, adults, children – 8 re	sidents
the beginning of the current Allergology and immunology for adults, children	
academic year residents	
	l duc
Anaesthesiology and resuscitation for adults, chi	iuren –
15 residents	
Paediatric surgery – 8 residents	
Clinical pharmacology – 2 years	
Medical genetics – 6 residents	
Neurology for adults, children – 5 residents	
= -	
Neonatology – 5 residents	
Nephrology for adults, children – 4 residents	
General surgery – 5 residents	

	Paediatric oncology and haematology – 14 residents
	Otorhinolaryngology for adults, children – 3 residents
	Ophthalmology for adults, children – 5 residents
	Pathological anatomy – 3 residents
	Paediatrics – 3 residents
	Radiology – 29 residents
	Rheumatology for adults, children – 6 residents
	Traumatology – orthopaedics for adults, children – 4
	residents
	Urology and andrology for adults, children – 5 residents
	Maxillofacial surgery, adults, children – 2 residents
	Endocrinology for adults, children – 18 residents
Full-time teachers/part-time teachers	The total number of teachers is 117, including full-time
involved in the implementation of	employees - 117, part-time employees - no
the EP	Sedateness,% - 35.9%
	Categorization, % - 69.2%
Website	https://umc.org.kz/
Instagram	https://www.instagram.com/umc.clinics/
Facebook with active pages	https://www.facebook.com/umc.clinics

#### Strengths of the educational organization and achievements over 5 years:

CF "UMC" was created in accordance with the decision of the Board of Trustees of the Autonomous Educational Organization "Nazarbayev University" dated September 20, 2015 No. 20 on the basis of subsidiaries of the joint-stock company "National Medical Holding".

The main activity is the provision of safe, effective and high-quality medical care, the development, implementation and dissemination of modern technologies in the field of medical science, education and practice.

CF "UMC" unites two leading medical centres, including the National Scientific Centre for Maternity and Childhood (hereinafter - NSCMC), the Republican Diagnostic Centre (hereinafter - RDC), and a branch in Kyzylorda. Two centres of the CF "UMC" (NSCMC, RDC) 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 2021 the CF "UMC" again confirmed compliance with international standards and successfully passed the JCI reaccreditation procedure as a single clinic.

As part of the integrated academic health care system of Nazarbayev University, CF "UMC" attracts foreign specialists "mentors" and organizes master classes with the participation of international experts on the basis of its centres 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.

In accordance with the Charter of the CF "UMC", approved by the decision of the Governing Council of Nazarbayev University dated October 16, 2015 No. 16.10.15), one of the main activities of the CF "UMC" is educational. Residency training at CF "UMC" has been carried out since 2016. Residency programs are implemented in 20 clinical specialties. The total number of students in the 2022-2023 academic years was 132 resident doctors. In 2023, 39 people graduated, the number of students admitted to residency for the 2023-2024 academic year was 87 people. On the basis of the CF "UMC", programs of additional and non-formal education are being implemented in 19 areas.

Since 2016, more than 100 specialists from the CF "UMC" clinics have been sent to leading foreign centres, who have mastered and successfully implemented the latest diagnostic and treatment technologies. The training was conducted at leading clinics in Israel, France, Lithuania, Japan, Switzerland, Singapore, Germany, and Russia. In addition, to master practical skills in advanced medical technologies, master classes are held and mentoring programs are implemented at the clinics

of the CF "UMC" with the involvement of qualified specialists from leading foreign organizations. CF "UMC" worked to become the official representative of the European Resuscitation Centre (ERC) in the Central Asian region. A Centre of Excellence in the field of training, research and innovation in the field of emergency situations has been created on the basis of the CF "UMC". A total of 19 certified instructors were trained.

Since 2019, as part of the development of the system of additional and non-formal education of the CF "UMC", a distance learning methodology has been introduced, a system of professional education has been formed for employees of the CF "UMC" - 86 employees have been trained, involved in teaching activities on the topic "Methodology of medical education and science", various 266 specialists from CF "UMC" were trained in clinical areas. During 2019 -2023, teachers of the CF "UMC" trained more than 5,000 students in additional and non-formal education from the regions of the Republic of Kazakhstan.

#### 2.2 Information about previous accreditation

CF "UMC" received institutional accreditation ECAQA #1A00001, the certificate is valid from 09.11.2018 - 08.11.2023.

### 2.3 Brief description of the self-assessment report of the Corporate Foundation "University Medical Centre"

The report on the institutional self-assessment of the CF "UMC" (hereinafter referred to as the report) is presented on 138 pages of main text, 13 appendices on 106 pages, copies or electronic versions of 56 documents located at the links:

https://drive.google.com/drive/folders/14S5rlRqW1y6YisriMINLOmtjOMFW3Nj\_?usp=sharing, https://drive.google.com/drive/folders/1VnNmI-pZJkoP16pgiHjoggnslA\_kePco?usp=sharing,

The report is characterized by completeness of answers to all 9 main accreditation standards and criteria, structured taking into account the recommendations of the Guidelines for self-assessment of medical educational organizations in ECAQA, provided by CF "UMC" (hereinafter referred to as educational organization) by the accreditation centre - ECAQA, as well as internal unity of information. The report is accompanied by a covering letter signed by the Deputy Chairman of the Board of the Corporate Foundation "University Medical Centre" Nurgul Kalievna Khamzina, which confirms the accuracy of the quantitative information and information included in the self-assessment report.

The report contains a list of 17 members of the internal self-assessment commission indicating the responsibilities of each employee, information about the representative of the organization responsible for conducting institutional self-assessment - Alma Alibekovna Syzdykova, MSc, MBA, and Director of the Education Department of CF "UMC".

Institutional self-assessment was carried out on the basis of the order of the Chairman of the Board No. 03-H/K dated April 4, 2023 "On approval of the composition of the working group to prepare for institutional accreditation of the corporate foundation "University Medical Centre".

The report was reviewed by an accreditation expert: Turgunov E.M. and the reviews noted strengths and areas for improvement, as well as recommendations for additions and changes, which were taken into account during the feedback process with a representative of the educational organization and appropriate changes and additions, were made to the self-assessment report.

All standards contain the actual practice of organizing education for training residents in 20 specialties and students in 19 programs of additional and non-formal education. The description in the self-assessment report is quite complete and updated in terms of the number of residents, students, teachers, administration, information about selection and admission, learning outcomes, results of assessment of knowledge and skills. Included is information about our own material and technical base with a total area of 19,250 m2 and a number of beds - 450, a diagnostic centre for 500 visits per shift, as well as third-party clinical bases (9 in total), contractual obligations with partners (universities, associations, bases), financial information, plans for development and improvement, etc.

The report is presented to ECAQA in a completed form, with data adjusted according to the above recommendations, written in literate language, the wording for each standard is clear and understandable and described in accordance with the criteria of the standards, tables and figures contain references in the text and are continuously numbered.

#### 3. Description of external expert evaluation

External expert work within the framework of the institutional evaluation of the CF "UMC" was organized in accordance with the Guidelines for conducting external evaluation of educational organizations and educational programs of the ECAQA. Dates of visit to the organization: November 27-29, 2023. The sequence of the visit within 3 days is presented in detail in the Visit Program (hereinafter referred to as the program), which is located in the documentation of the accreditation centre. The program is evidence of the implementation of all planned activities within the framework of external expert evaluation.

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

- interviews with management and administrative employees 15 people;
- interviews with residents 46 people;
- meeting with listeners 7 people;
- studying the website of the CF "UMC" (https://umc.org.kz/);
- interviewing 11 employees, 12 teachers, 8 mentors;
- survey of teachers and residents 32 and 80, respectively;
- observation of the training of residents: attendance at a practical lesson with 1-year residents, topic "Childhood Tumours", teacher Lee V.E., location CF "UMC";
- review of resources in the context of implementing accreditation standards: 6 practice/clinical engagement centres were visited, including the National Scientific Centre for Maternity and Childhood, the Republican Diagnostic Centre, the National Scientific Cardiac Surgery Centre, the National Centre for Neurosurgery, the National Scientific Oncology Centre, Nazarbayev School of Medicine University, where training is provided in 20 educational programs with the participation of 117 full-time teachers;
- study of educational and methodological documents in the amount of 96 units, both before the visit to the organization and during the visit to the units (the list of documents studied is in **Annex 2**).

The team of the accredited organization ensured the presence of all persons indicated in the visit program and according to the lists of interview sites (Table 1).

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

№	Position	Quantity
1	Management and administrative staff	7
2	Directors of clinical and academic departments	8
3	Teachers for residency specialties	39
4	Students of additional and non-formal education programs	7
5	Residents of different years of study (1-3 years)	96
6	Graduates of residency programs	8
7	Representatives of support services (human resources, financial sector)	9

On the last day of the visit to the organization, a meeting of EEC members was held based on the results of the external evaluation. Members of the EEC began drafting the final report of the EEC. Generalizations of the results of the external evaluation are made. The experts individually filled out the "Institutional Quality Profile and Criteria for External Evaluation of CF "UMC" for Compliance with the ECAQA Accreditation Standards." No comments were made by the EEC members.

Recommendations for improvement for the organization of education were discussed and Chairman E.M. Turgunov held a final open vote on recommendations for the ECAQA Accreditation Council for the accreditation period.

Comfortable conditions were created for the work of the EEC, and access to all necessary information and material resources was organized. The commission notes the high level of corporate culture of the team, the prompt provision of information to members of the EEC, the friendliness and professionalism of the organization's employees.

When conducting a survey of residents, the majority of respondents (73.8%) believe that it is necessary to accredit educational organizations or educational programs.

According to 81.3% of teachers, the survey conducted by the ECAQA is useful for developing recommendations for improving key areas of activity of an accredited educational organization.

At the end of the visit, the chairman of the EEC announced recommendations based on the results of the external evaluation as part of institutional accreditation to the management and employees of the educational organization.

## 4. Analysis of compliance with accreditation standards based on the results of an external evaluation of the Corporate Foundation "University Medical Centre"

### Standard 1: MISSION AND OUTCOMES 1.1 Mission

The mission and vision of CF "UMC" were developed taking into account the integrated academic healthcare system of Nazarbayev University and are reflected in the Development Strategy of CF "UMC" for 2019-2023, approved by the decision of the Board of Trustees of CF "UMC" dated May 25, 2019: "UMC will strive to provide high-quality care, achieve financial sustainability by implementing an integrated academic medical centre model that integrates education, research and clinical practice and generates scientific excellence and innovation to ensure excellence in patient-centred and family-centred care." Vision: "UMC will become a leader in improving and modernizing healthcare in Kazakhstan by creating the first integrated academic medical centre that will serve as a model and gold standard for high-quality, medically and economically effective patient care in the country and throughout the region."

When implementing the activities of the visit program, namely, based on the results of an interview with the first head of the organization, members of the advisory body of the Educational and Methodological Council, in interviews with residents, students and teachers, compliance with the criteria of **standard 1** was established. All participants in the educational process know the mission of the educational organization, took part in the formation of proposals for formulating the mission, while the mission was brought to the attention of residents and students through the website, social networks, and information letters to medical organizations. The organization's strategic plan was reviewed for a period of 5 years, including such areas as "mission, vision and transformation goals", which confirms the implementation of the accreditation standard and demonstrates the goals, objectives and prospects of the organization. From interviews with residents, it was established that before the start of classes, teachers inform about the mission, work plans of the educational organization, and tell where to get the necessary information about the educational program, teachers, and training bases.

During the visit to the units, accreditation experts noted the strengths of the educational organization, including: the main clinical bases where residents and students are trained are accredited for compliance with international JCI standards, a high level of material and technical equipment is provided for clinical units, a sufficient number of beds for training residents according to specialty

profiles, a high-quality composition of teachers and clinical mentors, a high level of involvement in scientific research, both residents and teaching staff, the creation of favourable conditions for students in the departments of the organization, the development and implementation of innovative technologies in the educational process.

The CF "UMC" has departments that are directly related to the educational process, which can be noted as the best practice in education, namely, the Department of Radiology and Nuclear Medicine. This conclusion was made based on a visit to UMC departments, where the commission was convinced of the high quality of teaching in this specialty, a well-thought-out schedule of classes and the organization of the working day of residents, having attended the practical lesson "Radiation diagnostics of lung formations" with residents of 1 and 2 years, and having conducted a survey among residents established a good level of theoretical training for students, knowledge of modern methods of visual diagnostics, information systems for storing and transmitting data. The commission also notes the high level of equipment and organization of work in the simulation centre at the School of Medicine of Nazarbayev University, with which UMC has corporate cooperation, including in the field of training residents in practical skills using simulation equipment.

The results of studying the documentation demonstrate that the organization's mission is feasible, meets the needs of stakeholders, and the educational process is structured in accordance with the State Educational Standard and current Laws and Statutory Instruments (LSI) in postgraduate education and healthcare. With regard to additional and non-formal education, the following was determined: from a conversation with students of additional education, it was established that the accredited educational organization has created the necessary conditions for acquiring new knowledge and mastering competencies in advanced training courses, especially in the specialty of obstetrics and gynaecology.

#### 1.2 Professionalism and professional autonomy

To verify **standard 1**, a meeting was held with the head of the organization - the director of the Department of Education A.A. Syzdykova. During the conversation, the experts asked the following questions: Which stakeholders took part in the discussion and formulation of the mission? Do teachers and teaching staff participate in the process of developing and approving educational programs? How is the catalogue of elective disciplines formed? On the basis of what documents are the final learning outcomes formed? How is the autonomy of an educational organization manifested? How does autonomy manifest itself when choosing teachers and mentors? Who regulates this process?

During the answers, the Director of the Department confirmed that at the CF "UMC", new educational programs are being developed based on the needs of practical healthcare in priority areas. Since CF "UMC" is a non-profit organization in the organizational and legal form of a foundation established by Nazarbayev University, the activities of CF "UMC" are based on the principles of autonomy, self-government, collegial decision-making, social responsibility and transparency.

Residency training is carried out in accordance with the State Compulsory Educational Standard, approved by order of the Ministry of Health of the Republic of Kazakhstan dated July 4, 2022 No KR MOH-63, as well as on the basis of the academic calendar, training schedule and work study programs. At the same time, the form, structure and procedure for developing WC, IEP, CED are determined by the CF "UMC" independently. Work curricula are discussed at meetings of the Educational and Methodological Council of the CF "UMC", which is a consultative and advisory body on issues of educational, methodological and organizational support for the educational process at the CF "UMC" and are reflected in the relevant protocols, which the commission was familiarized with during the visit. Members of the commission noted the presence of representatives of students and employers in the advisory body - the EMC of the CF "UMC".

Making decisions on the development of educational programs, evaluation, selection and admission of resident doctors, identification of teachers and scientific supervisors, employment of graduates, etc. is carried out in accordance with the current legislation of the Republic of Kazakhstan and the internal 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 March 26, 2021 No. 6, as well as the

Rules for admission to the residency of the CF "UMC", approved by the decision of the Board CF "UMC" dated March 1, 2018 No. 5.

During the visit, members of the commission were convinced that at UMC there is support and development of academic freedom of students, in particular through motivation for publications, speeches at conferences, and participation in various educational events, including outside UMC. At the same time, residents have the right to independently choose the topic of scientific research and the leader of the research project. When participating in a journal club meeting as a speaker, a resident can also independently choose the topic of a scientific article based on personal interests. In addition, during the survey, residents confirmed that they themselves participate in the formation of the IEP for each academic year; they are given freedom to choose the disciplines included in the CED, which makes it possible to choose an individual learning path.

Feedback from resident doctors is carried out through a questionnaire (Questionnaire "Evaluation of a residency program by a resident doctor"), where they can write their suggestions, wishes on educational, organizational and other issues. The analysis of the results obtained is carried out by employees of the Department of Education, and the results of the survey and students' proposals are discussed at the meeting of the EMC, as evidenced by the minutes of the meeting presented to the commission members.

When conducting a survey of 80 residents (on the resource <a href="https://webanketa.com/">https://webanketa.com/</a>), out of 22 questions, a number were devoted to the quality of the educational process and educational program. It was found that 78.8% of residents would recommend studying at this educational organization to their acquaintances, friends, and relatives. And 67.5% of respondents believe that educational program leaders and teachers are aware of students' problems related to learning. To the question "Do you think this educational organization allows you to acquire the necessary knowledge and skills in your chosen specialty?", 87.5% of residents answered positively, 8.8% were not sure about this, 3.8% could not answer this yet question.

During the conversation with the students, the following information was obtained: all students were satisfied with the training on the basis of this organization, and noted the high level of qualifications of the teachers.

The 32 teachers surveyed (21 survey questions) also answered that 81.3% were satisfied with the organization of work and workplace in this educational organization, and 15.6% partially agreed with this statement. Experts determined that the organization observes ethics and subordination in relations between colleagues, teachers, and management; this was confirmed by 90.6% of respondents. According to 84.4%, in an educational organization, a teacher has the opportunity to realize himself as a professional in his specialty. For your information, a total of 32 people responded (there are 117 in total), with teaching experience of up to 5 years – 21.9%, up to 10 years – 9.4%, over 10 years – 68.8%.

#### 1.3 Final learning outcomes

Members of the commission, when studying the submitted documentation, confirmed that UMC implements a competency-based model of medical education, focused on the final learning outcome. In particular, it was noted that, based on international approaches, residency educational programs were revised and approved in 2022, including such final learning outcomes as: patient supervision, communication and collaboration, safety and quality, public health, research, training and development. During visits to clinical sites, in particular the National Scientific Centre for Maternity and Childhood and the Republican Diagnostic Centre, in communication with residents, it was established that students were informed about the final results of training and successfully demonstrated a number of acquired skills and knowledge.

The experts were convinced that the professional behaviour and communication skills of residents are formed by achieving final results and are reflected in the relevant document - Code of Business Ethics of the CF "UMC" No. 17 dated December 26, 2022. Faculty and residents are informed about the code of ethics. You can familiarize yourself with the contents of the code of ethics on the website,

which serves as the basis for the formation of proper morality in the team, respectful attitude among themselves and towards patients.

The surveyed teachers responded that 68.8% were completely satisfied with the level of previous training of residents, and 28.1% were partially satisfied.

Experts have established a clear continuity between the final results of previous resident training (prerequisites) and residency training, and subsequent continuing professional development programs. The organization has developed 19 continuing education programs and 20 residency programs. Listeners and residents are informed about this through social networks and the organization's website.

93.8% of teacher respondents believe that students of this educational organization have free access to patients and all conditions for improving practical skills, and 6.2% partially agree with this.

#### 1.4 Participation in the formulation of mission and final results

During the visit, the experts held a number of meetings with stakeholders of the educational process, during which it was revealed that students, teachers and practical healthcare doctors know the main provisions of the UMC mission and take part in its formation based on discussion in departments, taking into account the results of analyses of student questionnaires, academic staff and employers via a 360° system. In addition, the discussion and approval of the mission was held at a meeting of the collegial body - the Board of Trustees of CF "UMC" on May 25, 2019.

Thus, experts have confirmed that the mission has been formulated and the final learning outcomes of residency programs have been determined, taking into account the proposals of stakeholders such as residents, teachers, clinical mentors, representatives of practical healthcare, and representatives of informal professional associations. And the programs of additional and non-formal education are compiled on the basis of suggestions from students, teachers and practical healthcare workers.

*Conclusions of the EEC on the criteria.* Comply out of 12 standards: fully - 12, partially - 0, do not comply - 0.

**Recommendations for improvement:** none

#### **Standard 2: EDUCATIONAL PROGRAMME**

#### 2.1 Model of educational programs

Educational activities in residency are carried out using credit technology in accordance with the order of the Minister of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152 "On approval of the Rules for organizing the educational process using credit technology of education." In accordance with the State Compulsory Educational Standard, the curriculum maintains the ratio of the volume of disciplines. The academic load corresponds to at least 70 academic credits (2100 academic hours) for one academic year. One academic credit is equal to 30 academic hours. The academic year in residency consists of one academic period, annual certification, and vacations and in the final year – end-of-course assessment. Residency training includes classroom work, independent clinical work under the guidance of a mentor, and the student's own independent work. The volume of theoretical training is no more than 20% of the volume of the curriculum.

The residency educational program is aimed at mastering theoretical and practical skills in accordance with the established final learning outcomes in terms of the qualifications of graduates of PE programs, the final results are based on the requirements of the State Compulsory Educational Standard 2022 and include the following points: patient supervision, communication and collaboration, safety and quality, public health, research, education and development. During the study of documents, experts confirmed the formulation of the final learning outcomes in each educational program in residency specialties with the inclusion of relevant competencies: Knowledge and understanding; General and special skills; Communication skills; General and special skills; Professionalism; Conducting research work; Ability to learn.

Members of the commission analysed the main documents regulating activities regarding the implementation of postgraduate education: "Rules for organizing the educational process in the

residency of the CF "UMC", approved by the decision of the Board of the Corporate Foundation "University Medical Centre" No. 6 dated 03/29/2021 and the Rules for admission to the residency of the CF "UMC", approved by the decision of the Board of the Corporate Foundation "University Medical Centre" No. 5 dated 03/01/2018. Also, CF "UMC" provides educational services at the level of additional professional education: certification courses and CDP, master classes, seminars, internships at workplace, trainings. The implementation of these programs is carried out in accordance with the order of the Ministry of Health of the Republic of Kazakhstan dated December 21, 2020 No KR MOH-303/2020 "On approval of the rules for additional and informal education of specialists in the field of healthcare, qualification requirements for organizations implementing educational programs for additional and informal education in the field of healthcare, as well as the rules for recognizing learning results obtained by healthcare specialists through additional and non-formal education", as well as the Rules for the organization of additional and non-formal education of healthcare specialists in the CF "UMC", approved by the decision of the Board of the CF "UMC" dated 04/28/2023 city No. 6.

For the implementation of educational programs in residency specialties, the organization's documents contain EMCD, which defines the goal, takes into account the integration of practical and theoretical components, and independent work. Compliance with state standards and standard requirements has been established.

During the visit, members of the commission especially noted the importance of introducing innovative methods into specialist training programs. Thus, at EMC of the CF "UMC", since 2022, work has been carried out to improve residency programs based on ACGME standards, measures are being taken to harmonize residency programs in the specialties "Obstetrics and gynaecology for adults, children", "Paediatrics" with the programs of the School of Medicine of Nazarbayev University " The composition of the Working Group on Program Harmonization and a road map for the implementation of activities have been approved. An updated residency program has been developed jointly with professors of the Obstetrics and Gynaecology (OBGYN) program of NUSM, the involvement of residents of the CF "UMC" in the academic events of the NUSM program: lectures, journal club, case-conference, introduction of a comprehensive evaluation of the progress of residents: resident evaluation forms upon completion rotation, CREOG In-training Examination (exam of the American College of Obstetricians and Gynaecologists (ACOG)).

By attending practical classes on the module "General and Particular Pathology" (1-year residents in the specialty "Pathological Anatomy" and training in a simulation room on laparoscopic surgery (2-year residents in the specialty "General Surgery"), the experts received convincing evidence that the training is carried out according to plan, before the start of the lesson, residents answer tests, receive feedback from the teacher, and have the opportunity to improve their skills on modern simulation equipment with computerized feedback.

The organization ensures compliance with ethical aspects in the implementation of the educational program, since experts have studied the Code of Business Ethics of the CF "UMC", approved by the Board of December 26, 2022 (protocol No. 17) and during the interview; residents responded that they were informed about the contents of this document.

An analysis of educational activities showed that the scientific basis and all the achievements of science in the advising disciplines were taken into account, additions were made to the EMCD bibliography and syllabuses, and teachers use them in the classroom.

The mentoring system was assessed, which is described in the document "Rules for organizing the educational process in the residency of the CF "UMC", approved by the decision of the Board of the Corporate Foundation "University Medical Centre" No. 6 dated March 29, 2021. A total of 55 clinical mentors (an average of 3 residents per 1 mentor), whose tasks are to promote the comprehensive active professional development of the resident physician and the distribution of clinical workload, monitoring progress and attendance, assessing mastery of skills, training residents through various types of clinical activities (rounds, operations, consultations, discussion of clinical cases, etc.).

Independent training of residents includes theoretical and practical training: lectures, seminars, journal club, educational and clinical commission (grand round), work of a resident doctor on RW; discussion of a clinical case, examination of a patient, supervision of patients, maintenance of accounting and reporting documentation; participation in rounds and clinical conferences, consultations, simulation training, student work on preparing and passing the end-of-course assessment. The extracurricular work of a resident doctor is supervised by a clinical mentor and includes: examination of the patient, supervision of patients, maintaining records and reporting documentation; participation in rounds and clinical conferences, consultations. In the course of independent work, the resident doctor masters and consolidates knowledge of theoretical material in a practical way (on duty, supervising patients, mastering practical skills, working in various departments of medical organizations, etc.); applies acquired knowledge and practical skills to analyse the situation and develop the right solution; applies acquired knowledge and skills when writing RW.

Students are trained in accordance with the current policies of professional organizations, since the final training results correspond to the professional standards of specialists.

The procedure for informing residents about their rights and responsibilities is reflected in the "Rules for organizing the educational process in the residency of the CF "UMC", approved by decision of the Board of the Corporate Foundation "University Medical Centre" No. 6 dated 03.29.2021 and posted on the electronic resources of UMC, which indicates compliance with standard 2 in terms of adapting training to the needs of residents.

The qualifications obtained as a result of completing the residency educational program correspond to level 7 of the national qualification framework in medical education and, therefore, the Qualifications Framework in the European Higher Education Area. (ESG 1.2)

The educational organization adapts training to the needs and wishes of individual students, for example, the use of a hybrid training option - a combination of distance and face-to-face education methods.

Along with the principles of quality and academic integrity, which are described in the Rules for organizing the educational process in the residency of the CF "UMC", the organization operates an anti-plagiarism system using the resources of the site <a href="https://antiplagiat.ru">https://antiplagiat.ru</a>, which, for example, is actively used in evaluating the scientific projects of residents.

#### 2.2 Scientific method

During the visit, members of the commission got acquainted with scientific programs and achievements, it was established that the CF "UMC is accredited as a subject of scientific and scientific-technical activities for 5 years (Certificate series MK-000058 dated 03/09/2021), and employees are actively involved in carrying out scientific and technical projects, involving resident doctors in scientific activities. Particularly noted were projects in which residents actively participate, carried out in the field of obstetrics and gynaecology, paediatrics: "Stress, anxiety, and depression in women undergoing in vitro fertilization in public and private clinical settings in Kazakhstan"; "The assessment of Pipelle for endometrial sampling in Kazakhstani settings"; "Reducing the use of narcotics and sedatives in family-centred care in paediatric intensive care"; "Symptoms of menopause and burnout syndrome: occupational health among medical workers in hospitals of the CF "UMC" in Astana"; "Assessment of the quality of life during menopause among medical workers of hospitals of the UMC corporate foundation in Astana"

Experts noted that all resident doctors carry out research projects. In April and May 2023, at the meeting of the EMC, the research works of the 2023 residency graduates and scientific supervisors were approved (protocols of the EMC dated 04/26/2023 No. 4, 04/27/2023 No. 5, 05/02/2023 No. 7, 05/24/2023 No. 8). In June 2023, at a meeting of the EMC, reports were heard on the results of the RW of residency graduates (protocols of the EMC No. 9 of 06/01/2023, No. 10 of 06/06/2023, No. 11 of 06/07/2023, No. 12 of 06/08. 2023, No. 13 dated June 26, 2023).

In addition, in order to improve scientific and clinical activities and exchange experience, academic staff and residents participate in conferences, congresses, seminars, symposia, congresses,

meetings and forums held in the Republic of Kazakhstan, in near and far abroad countries, after which various events are held on the implementation of best practices in educational and clinical processes.

The educational program includes scientific fundamentals, and the methodology of medical research is included in the syllabuses of the disciplines clinical research and clinical epidemiology (1 credit each). When talking with residents, experts learned that they use scientific evidence in their training and know the basics of evidence-based medicine. The teachers said that they teach residents methods of critical evaluation of literature, articles and scientific data, and the application of scientific developments. This form of training is organized in the form of a "journal club", which is held from 1 to 4 times a month, depending on the residency specialty.

Residents and students have access to updated scientific and clinical data, since the educational organization has implemented access to numerous electronic international resources through cooperation with Nazarbayev University. Access to scientific results is organized, as research is carried out on grant scientific projects, and residents can take part in scientific teams. Free access to practical experience is also provided, as there is our own clinical base with 450 beds and specialized departments of paediatric surgery, general surgery, anaesthesiology and intensive care, internal medicine, women's health, paediatrics, laboratory medicine, pathology and genetics, radiology and nuclear medicine. Work is underway to develop cooperation with the technology park and biotechnology laboratory of Nazarbayev University.

When surveying residents, it was found that the educational organization has access to students' participation in research work and 62.5% of people were completely satisfied with this, 18.8% were partially satisfied, and 1.3% were dissatisfied. Residents should do research and in response to the questionnaire, 18.8% wrote that they are already doing research, 12.5% are planning to start, 3.8% are not doing it.

#### 2.3 Learning and teaching methods

Members of the accreditation commission, during a visit to the units of the CF "UMC", confirmed the wide variety of educational methods used in training residents. Theoretical knowledge is acquired using teaching methods such as lectures, small group classes, problem-based learning, learning from clinical cases, journal clubs, etc., for this purpose there are classrooms, lecture halls that meet sanitary standards. The main part of the training is practical training, which is carried out on the basis of the centers of the CF "UMC", as well as on the basis of clinics in Astana: JSC National Center for Neurosurgery, NJSC National Scientific Cardiac Surgery Center, Multidisciplinary City Hospital No. 2 of Astana ", "Hospital of the Medical Center of the Administration of the President of the Republic of Kazakhstan", "Multidisciplinary City Hospital No. 3 of Astana", "Multidisciplinary City Children's Hospital No. 3 of Astana".

Improving the practical training of residents and their acquisition of specific skills is facilitated by the introduction of such assessment forms as "formative assessment", which allows for immediate constructive feedback, and a "minimum list of practical skills". The resident's clinical work is reflected in portfolios and evaluation forms. At clinical bases, students examine patients, under the supervision of a clinical mentor, under the supervision of teachers, perform medical procedures, maintain medical records, draw up plans for examination and management of patients. Resident doctors, according to the drawn up duty schedule (at least 4 per month), are part of the duty team, and upon completion, report at morning conferences on the work done.

According to JCI international quality standards, not only high-quality medical care is ensured, but also patient safety. All actions of resident doctors are carried out in compliance with the requirements of national clinical protocols for the diagnosis and treatment of diseases and standard operating procedures.

Resident on-the-job training ensures that students develop knowledge, skills and professional attitudes appropriate to the various roles of a physician: practitioner, medical expert, communicator, team member, scientist/researcher, etc.).

#### 2.4 Program structure, content and duration

Members of the commission noted that the submitted regulatory documents contain documents containing requirements for the structure and content of educational programs, including the State Compulsory Educational Standards for 2022 (approved by order of the Ministry of Health of the Republic of Kazakhstan dated June 4, 2022 MOH-63), Model curricula for medical and pharmaceutical specialties (approved by order of the MOH RK dated January 9, 2023 N4). The Department of Education of CF "UMC" bears responsibility for the selection and implementation of innovations in the educational process.

In accordance with the State Compulsory Educational Standard, the structure of the educational program (EP) consists of a compulsory component and an optional component. The duration of the EP residency is 2-3 years of study according to the specialty. 2 credits are allocated for final certification. In accordance with the TC, the main nosologies and a list of practical skills with the number of their implementation, the main disciplines and their duration are prescribed, according to which educational programs have been developed in the relevant specialties.

Experts noted that the CF "UMC" annually reviews the list of privileges, which describes the basic skills that they can perform independently or as an assistant, and when scheduling training sessions, residents' suggestions for choosing a third-party clinical base for completing the discipline are taken into account.

The content of work programs and the catalogue of elective disciplines reflect the needs of the healthcare system, including highly qualified personnel, as well as the specifics of research and scientific achievements of teachers. PC cycle programs provide for the improvement and acquisition of new competencies necessary for professional activities, or increasing the professional level within the framework of an existing specialty and are developed with coverage of practical health care problems and ways to solve them. Also, CF "UMC" organizes events commissioned by the Ministry of Health of the Republic of Kazakhstan, so as part of the implementation of paragraph 9 of the Operational Action Plan to reduce maternal mortality of the Republic of Kazakhstan, internships and mentoring seminars were developed and conducted for medical workers of regional specialists - Organization of the work of the department of anaesthesiology, resuscitation and intensive care therapy, Respiratory therapy in neonatology, Nursing of low birth weight babies, Emergency conditions in obstetric practice in which more than 160 regional specialists were trained in 2020-2022.

For the successful implementation of residency programs, the organization has resources for organizing the evaluation of the practical skills of residents (its own medical centres - NSCMC and RDC, as well as affiliated ones - JSC "National Scientific Cardiac Surgery Centre", JSC "National Centre of Neurosurgery", LLP "National Scientific Oncology Centre", as well as specialized departments of city hospitals.

Teachers provide residents with methodological and didactic materials, additional literature to prepare for classes, with which 72.5% are completely satisfied, 16.3% are partially satisfied, 2.5% are not satisfied.

Students of advanced training programs are also provided with the necessary teaching materials, Internet resources, and additional literature.

The organization has its own clinical base Centre of the CF "UMC" National Scientific Centre for Maternity and Childhood - a multidisciplinary hospital with 500 beds, Centre of the CF "UMC" National Cardiac Surgery Centre - a cardiac surgery centre with 200 beds, Centre of the CF "UMC" Republican Diagnostic Centre with a capacity of 800 visits per shift. Also, the organization entered into agreements with medical organizations (NSOC No. DO-2060 dated 11/08/2023, MSI at the REM "City Phthisiopulmonology Centre" No. 994 dated 04/26/2023, City Children's Hospital No. 3 from DES-180 dated 01/24/2023, City Hospital No.2 DES -129 dated January 19, 2023, Nazarbayev University School of Medicine, as well as a memorandum of strategic partnership with the University of Pittsburgh Medical Centre.

To the question of the questionnaire "Is there sufficient time for practical training (supervision of patients, etc.)", 90.0% of residents responded with complete agreement, 5.0% partially agreed, 2.5%

disagreed. At the same time, 73.8% of residents claim that after completing classes the teacher provides feedback (listens to your opinion, conducts a mini-questionnaire, works on mistakes).

Clinical training is provided in external multidisciplinary clinic settings and staffs coordinate training at these clinics to ensure that residents acquire adequate training in various aspects of their chosen field of medicine. For example, in our own clinical base there is no opportunity to train residents in emergency situations in clinical practice, therefore these sections and modules of the EP, according to cooperation agreements, are held on the basis of multidisciplinary city hospitals.

At the same time, to the question "Do representatives of residents participate in the development of educational programs?", the experts received the following answer - 2 senior residents are members of the advisory body - the EMC.

The surveyed residents are fully satisfied with the schedule of training sessions (67.5%).

#### 2.5 Organization of training

Management of the educational process, reflected in the self-assessment report (**Standard 2**) and general approaches to management were confirmed during a visit to the Department of Education of CF "UMC" and conversations with the head and employees.

The experts got acquainted with the work of the departments, including 8 clinical and academic departments, in total 9 meetings were held with department directors, teachers, clinical mentors, practitioners, residents, PC students, residency graduates, and during cross-interviews it was established that, in general, in the CF " UMC" provides high-quality training for specialists in PE programs, including residency and PC programs; the vast majority of stakeholders at meetings positively evaluate the organization of the educational process.

When attending a training session on laparoscopic surgery in a simulation room and talking with residents, experts saw that the organization promotes the development of practical competencies of residents, including on simulation equipment. At the same time, residents deepen their theoretical knowledge, develop communication skills and teamwork skills.

The training of residents is aimed at meeting the needs of practical healthcare; when analyzing the shortage of specialists for 2022, a shortage of personnel was identified in obstetrics and gynecology, pathological anatomy, radiology, pediatric surgery and pediatrics. This organization is specialized in the field of maternal and child health, cardiac surgery and provides a lot of opportunities and conditions for qualified training of specialists in these areas. Thus, during a conversation with the management of the organization, experts received information about the practical orientation of residency training, and teachers confirmed that the training of residents is carried out directly in the clinical departments of the NSCMC and the RDC.

On the basis of the NSCMC, resident doctors, depending on the specialty studied, carry out: prenatal care, including women in labour at risk and management of complex childbirth; neonatal care, including new-borns' weighing less than 1000.0 grams; diagnosis and treatment of children with systemic connective tissue diseases, neurological, nephrological, complex somatic, oncological and haematological diseases; take part in in vitro fertilization; reconstructive and plastic surgical operations of the chest, abdominal cavity, retroperitoneal space, maxillofacial area, ENT organs, genitourinary system, musculoskeletal system in children; endovideosurgical operations for developmental defects and diseases of the chest, abdominal cavity, retroperitoneal space in children; deepen knowledge and skills of radiation and genetic diagnostics.

At the RDC, residents study outpatient care for adults and children, master laboratory and radiation diagnostic methods (MRI, CT, PET/CT, SPECT).

This is facilitated by mentoring, which is carried out at the CF "UMC".

Of the 80 residents surveyed, 70.0% responded that teachers in the classroom use active and interactive teaching methods quite often, 10.0% believed that they rarely or sometimes. When visiting an educational organization, experts did not identify any problems in introducing new teaching methods

#### 2.6 Educational program development process

During the visit and conversation with the director of the education department, as well as during the analysis of relevant documents, it was established that educational programs for residency specialties are developed by the CF "UMC" independently, while the content of the EP complies with the State Compulsory Educational Standard and the Standard Curricula for medical and pharmaceutical specialties. The TC is approved by the authorized body in the field of education. The TC determines the complexity of each academic discipline of the compulsory component in credits, and the optional component is indicated by the total number of credits.

New EPs are developed when a new specialty is included, taking into account the needs of practical healthcare and are revised as necessary, but at least once every 3 years. For example, it was found that there is an acute shortage of pathologists in almost all regions of the Republic of Kazakhstan; therefore, this organization developed an EP in this specialty and provided opportunities and conditions for qualified training of specialists in this field.

EPs are developed by teachers from among the medical staff of the CF "UMC" who have the appropriate qualifications, in agreement with the Department of Education. The WC determines the list and labour intensity of each academic discipline of the compulsory component and the elective component of credits, the order of their study, types of training sessions and forms of control. WC is developed for the academic year and approved by the head of the CF "UMC" and serves as the basis for calculating the labour intensity of the teacher's educational work.

IEP determines the individual educational trajectory of each student separately and is approved by the supervising supervisor.

In addition to the TC, a catalogue of elective disciplines (CED) is being developed, which is a systematized annotated list of all disciplines of the elective component, containing their brief description indicating the purpose of study, brief content (main sections) and expected results of study (knowledge acquired by students, skills, skills and competencies). The CED reflects the prerequisites and post requisites of each academic discipline. CED provides students with the opportunity to alternatively choose elective academic disciplines.

Continuing education programs are developed according to the needs of practical healthcare, taking into account the possibility of clinical bases, the availability of qualified teachers and, depending on the content and direction, are divided into: CDP programs and certification courses aimed at expanding or mastering new professional competencies in the area of the main specialty. The structure of educational programs includes: the purpose and objectives of the program; planned learning outcomes, methods for evaluating knowledge, a list of recommended literature and control and measurement tools. In 2023, PC cycle programs in 19 specialties were approved at the EMC.

During the visit and analysis of the submitted documentation, experts confirmed that the management of the CF "UMC" supports and encourages the involvement of staff and students in the process of developing and implementing EP. Thus, employees of the Department of Education, together with representatives of practical healthcare, participate in the planning and implementation of educational programs in relevant specialties. Academic staff and resident doctors participate through discussion and involve the entire team in this process. Employees have the opportunity to express their opinions at EMC meetings.

According to the approved Rules for organizing the educational process in residency training dated March 29, 2021, Protocol No. 6, doctors involved in teaching activities, with the assistance of employees of the Department of Education, participate in the development of disciplines for the elective component, working curricula, syllabuses in the relevant discipline, after which the developed documents are reviewed and approved at EMC meetings.

In order to involve resident doctors in resolving issues related to the organization of the educational process and educational work, as well as increasing their social and professional responsibility, CF "UMC" encourages their active participation in management, as well as social and scientific activities. When developing elective disciplines, the Department of Education annually requests information from residents of the relevant specialty based on their interests and the availability of the clinical base. In particular, a resident in the specialty "Paediatric Surgery" chose the

elective discipline "Maxillofacial Surgery in Children," and resident doctors from among obstetricians and gynaecologists chose "Ultrasound in Obstetrics and Gynaecology, Ultrasound of the Fetus." Resident doctors have the opportunity to make proposals for improving the conditions of the educational process through questionnaires or during meetings with the management of the CF "UMC".

#### 2.7 Procedure for approval of educational programs

All EPs in residency specialties are approved by the EMC. Thus, at the time of the visit, educational programs for 20 residency specialties were developed and approved by EMC Protocol No. 7 of September 5, 2022.

According to the presented documents, the composition of the EMC (approved by order of the Deputy Chairman of the Board of the CF "UMC" dated June 14, 2023 No. 09-n/k) includes the chairman represented by the deputy chairman of the Board, the deputy chairman of the EMC represented by the director of the Department of Education, 18 members from among the administrative -managerial staff of the CF "UMC" and representatives of the CAD, as well as the secretary of the EMC. According to the Regulations on the Educational and Methodological Council dated November 21, 2019 No. 26, the subject of the EMC's activities is the coordination and control of the educational activities of the UMC, including its centres/clinical academic departments.

In accordance with the orders of the Ministry of Science and Higher Education of the Republic of Kazakhstan dated October 31, 2018 No. 600 "On approval of the Standard Rules for admission to training in educational organizations implementing educational programs of higher and postgraduate education" and dated October 12, 2022 No. 106 "On approval of the Rules for maintaining a register of educational programs implemented organizations of higher and (or) postgraduate education, as well as the grounds for inclusion in the register of educational programs and exclusion from it" in 2023, educational programs for residency at the CF "UMC" were included in the register of ESUVO. Currently, 13 educational programs in residency specialties are included.

During the visit, experts confirmed that the control system at its own clinical sites complies with international standards for the quality of medical care; there is sufficient access to educational resources, and a high level of material and technical equipment.

*Conclusions of the EEC on the criteria.* Comply out of 24 standards: fully - 24, partially - 0, do not comply - 0.

**Recommendations for improvement:** none

### **Standard 3: COMPETENCY ASSESSMENT AND DOCUMENTATION 3.1 Evaluation methods**

The study of control and measurement tools (150 tests, 50 training cases, 12 portfolios) showed that the organization has implemented an appropriate evaluation policy that allows for a comprehensive evaluation of the educational achievements of residents. During the interview, residents talked about the forms of evaluation, for example, current evaluation, midterm, final, summative, and that they were satisfied with all of them. They also receive regular feedback from teachers. The criteria for admission to the end-of-course assessment are the results of intermediate certification. This is documented in the Rules for the organization of postgraduate education at the CF "UMC", approved by decision of the Board No. 6 of March 29, 2021.

The admission of resident doctors to the end-of-course assessment is issued by order of the supervising head of the CF "UMC" according to the list no later than two weeks before the start of the end-of-course assessment and is submitted to the certification commission.

The system of appealing assessment results is reflected in the Rules of organizations of the educational process in the residency of the corporate foundation "University Medical Centre" Approved by the decision of the Board of the corporate foundation "University Medical Centre" dated March 29, 2021 No. 6 and in the Rules for admission to the residency of the CF "UMC", approved by

the decision of the Board CF "UMC" on March 1, 2018 No. 5. During the reporting period of the educational organization, there were no precedents for appeal.

So, to verify the data of **standard 3**, the experts asked questions to the director of the Department of Education Syzdykova A.A. and reviewed documents and methods for assessing residents and trainees. It was established that in order to implement postgraduate education programs, determine the procedure for organizing and implementing educational programs, as well as the procedure for training medical personnel in residency, the CF "UMC" developed "Rules for organizing the educational process in the residency of the corporate foundation "University Medical Center", approved by the decision Board of the CF "UMC" dated March 29, 2021 No. 6.

Instruments have been reviewed by internal and external reviewers. The Director of the Education Department responded that additions and updates to the CIS are planned to be made taking into account integration with Nazarbayev University and in accordance with the recommendations of the foreign partner - UPMC.

Training clinical cases, algorithms, standard operating procedures, and tests have been compiled for students.

During a visit to the organization and during an interview with Syzdykova A.A., the commission was convinced that there is a documentation system that is transparent and accessible to all teachers and staff, and includes documents such as annual operating plans, annual reports, department regulations, agreements with teachers and residents, educational and methodological documents (work program, working curricula, syllabuses, journals), assessment tools (checklists, statements), awards, certificates and verifications. A review of the website showed that its pages contain the documents necessary for residents (syllabuses, catalogue of elective disciplines, schedule, EMCD) and there is information about upcoming events (conferences, master classes), which is regularly updated.

#### 3.2 Relationship between evaluation and learning

During the visit, it was established that the results of the evaluation of residents are documented as follows: for the current evaluation of academic performance, a template for evaluating various competencies using a 5-point system has been developed. The total grade is entered in a paper educational journal.

The organization evaluates the reliability and validity of evaluation methods as follows: The accounting and monitoring of evaluation forms is carried out by the Department of Science and Education together with the science and education sector of the CF "UMC" throughout the entire training. Reviewed evaluation forms are kept in the resident physician's portfolio. At the same time, the commission noted that the organization has not implemented an automated system for evaluating the validity of tests, which creates difficulties in evaluating a large number of tests manually.

When conducting interviews with 39 teachers regarding evaluation methods, the experts received convincing information that teachers are aware of the types of evaluation and assessment methods developed in the organization. Residents also shared their opinions on the timeliness of providing tests, counselling before exams, the clarity of the entire evaluation procedure and its fairness. For example, residents said that they consider the practical stage of passing the end-of-course assessment to be the most important. Participants in the professional development programs also expressed their views on evaluation methods, which are quite clear and transparent.

During the visit to the organization, management was asked the question: "Are external examiners involved in order to improve the fairness, quality and transparency of the assessment process?" An affirmative answer was received and the relevant documents were presented. From the analysis of which it follows that in the organization of education there is a practice of involving external examiners in assessing residents, which is documented in 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" on March 29, 2021 No. 6 according to paragraph 45 of the comprehensive exam in the specialty is carried out in the form of testing and assessment of practical medical skills. This ensures the independence and objectivity of the evaluation results.

Thus, in 2019, by order dated June 28, 2019 No. 03-k, the chief physician of the State Public Institution at the Perinatal Centre No. 2, candidate of medical sciences, G.G. Urazbaeva, was appointed chairman of the State Attestation Commission. Since 2020, the State Certification Commission has been called the Final Certification Commission (FCC). Since 2020, the head of the Centre for Molecular Medicine, obstetrician-gynaecologist, candidate of medical sciences B.A. Turakbaeva was appointed chairman of the FCC. In 2021, T.B. Dautov, Director of the Department of Radiology and Nuclear Medicine, was appointed Chairman of the FCC. In 2022-2023, Chairman of the FCC D.B. Jenalaev, Director of the Clinical Academic Department of Paediatric Surgery.

The experts examined the resources for organizing the evaluation of knowledge and practical skills, namely, the Simulation Room at the National Medical Centre with a simulator for practicing a practical skill - applying a laparoscopic suture, as well as the Simulation Centre at the School of Medicine of Nazarbayev University (NUSM), where there are a variety of simulators and mannequins to develop practical skills and pass the practical stage of the final certification of residents.

Experts determined that the choice of methods for assessing residents is based on the key competencies of the residency graduate and the final results, since the practical part of training is the main one that contributes to inter-professional learning. And a method such as rotation at clinical sites demonstrates the integration of training and an emphasis on clinical skills. Established assessment methods ensure that the resident has mastered all sections of the educational program and acquired the necessary practical skills.

At the same time, experts noted that in test tasks for residents there is a small proportion of questions of 3-4 categories of complexity, some of the questions relate to training programs of the previous level (internship).

#### 3.3 DOCUMENTATION

Evaluation of students' educational achievements is carried out using criteria, regulations and procedures developed in accordance with the set goals and objectives for the implementation of educational programs and assigned qualifications within the framework of the current point-rating system and control of the educational process in accordance with directive, external and internal regulatory documents:

- Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 No. 319-III (as amended and supplemented as of September 10, 2023)
- Order of the Minister of Health of the Republic of Kazakhstan "On approval of state mandatory standards for levels of education in the field of healthcare" dated July 4, 2022 No KR MOH-63;
- Rules for ongoing monitoring of academic performance, intermediate and end-of-course assessment of students in educational organizations, approved by order of the Ministry of Education and Science of the Republic of Kazakhstan dated 2008 No. 125;
- Rules for the organization of postgraduate education in the corporate foundation "University Medical Centre", approved by decision of the Board of the corporate foundation "University Medical Centre" No. 6 dated March 29, 2021;

CF "UMC" adheres to the requirements of working curricula in disciplines, which reflect various forms and methods of monitoring students' knowledge, including testing, oral questioning, and passing practical skills. CF "UMC" is independent in choosing the forms, order and frequency of ongoing monitoring of students' progress in accordance with Article 28, paragraph 7 of the Law of the Republic of Kazakhstan "On Education".

To implement postgraduate education programs, determine the procedure for organizing and implementing educational programs, as well as the procedure for training medical personnel in residency, CF "UMC" developed "Rules for organizing the educational process in residency of the corporate foundation "University Medical Centre", approved by the decision of the Board of CF "UMC" » dated March 29, 2021 No. 6.

As part of the integration of the CF "UMC" and the National Cardiac Surgery Centre, Foundation employees received access to the Anti-Plagiarism system.

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At CF "UMC", monitoring and internal control of the quality of teaching and educational achievements of students is carried out through current, intermediate, final control in the discipline and is focused on learning outcomes.

The academic achievements of a resident doctor 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 Department of Education at CF "UMC".

Documentation reflecting the educational achievements of a resident physician includes the following:

- 1) portfolio of a resident doctor;
- 2) attendance register;
- 3) statements of discipline.

To monitor and evaluate the current performance of resident doctors, CF "UMC" uses criteria-based evaluation, including formative assessment, summative assessment, and a list of practical skills. The educational achievements of a resident doctor are assessed on a 100-point scale corresponding to the letter system accepted in international practice (positive grades, in descending order, from "A" to "D", "unsatisfactory" - "F") with a corresponding digital equivalent of 4 -x point scale.

During a visit to the clinical site and interviews with department heads, the commission was convinced that there was a documentation system in place that was transparent and accessible to all faculty and staff, and included documents such as annual plans, annual reports, department regulations, contracts with faculty and residents, full educational and methodological documentation (EP, working curricula, syllabuses, journals), assessment tools (checklists, statements), awards, certificates and verifications.

The survey showed that 81.25% of residents were completely satisfied with the methods of assessing knowledge and skills, and 8.75% were partially satisfied.

At the same time, experts noted that the organization has not implemented a single electronic journal with the possibility of online access for both the teacher and the student and the administration to control grades and the transparency of their issuance.

**Conclusions of the EEC on the criteria** comply with 11 standards: fully - 8, partially - 3, do not comply - 0.

#### Recommendations for improvement:

- 1) To ensure that grades are given according to the developed evaluation system in accordance with the "Instructions for the development of educational and methodological documentation and the system for evaluating the educational achievements of a resident physician" UMC. According to the rules for organizing the educational process in the residency of the CF "UMC" 03/29/21, the grades of the current, intermediate and end-of-course assessment in alphanumeric format (Standard 3.1.1.) must be entered in the resident progress log (Standard 3.1.1.).
- 2) Test tasks should be reviewed according to the qualification requirements for residents. Implement an automated system for determining the validity and reliability of test items (Standard 3.1.4).
- 3) To introduce a unified electronic journal for recording the progress of residents and students of advanced training programs (Standard 3.2.1).

#### **Standard 4: TRAINEES AND LISTENERS**

#### 4.1 Admissions policy and selection

The organization has a policy for the admission of residents, which is set out in the Rules for Admission to the Residency of the CF "UMC", approved by the decision of the Board of the CF "UMC" dated March 01, 2018 No. 5. The director of the Department of Education Syzdykova A.A. spoke about the policy for the admission of residents. Approaches to the admission of residents are based on the requirements of the country and internal regulations, namely, Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600 "On approval of the Standard Rules for admission to study in educational organizations implementing higher and postgraduate educational programs education", Orders of the Minister of Health of the Republic of Kazakhstan dated December 15, 2020 No. KR DSM-270/2020 "On approval of the list of specialties and specializations of healthcare specialists subject to certification" and dated March 15, 2023 "On amendments to some orders of the Ministry of Health of the Republic of Kazakhstan." For the period 2016-2022. 159 residents were accepted into educational programs in 15 specialties, 159 people successfully completed their training. At the same time, 113 people received "excellent", 35 "good", 1 "satisfactory" according to the results of the final exam.

Students are accepted in accordance with the order of the Ministry of Health of the Republic of Kazakhstan dated November 30, 2020 No. KR MOH-218/2020 "On approval of the list of specialties and specializations of healthcare specialists subject to certification." Professional development cycles accept specialists who have previously received professional education in their main specialty and (or) have undergone professional retraining in this specialty, holding positions corresponding to the specialty in which advanced training is being carried out.

A balance is ensured between the existing potential of the educational organization and the opportunities for training and recruitment of students and listeners, since the organization has its own clinical base and highly qualified specialists.

When selecting residents, such abilities of applicants as high motivation, desire and ability to learn, good knowledge of prerequisites, research interest, and knowledge of foreign languages are considered.

Thus, experts validated the data according to **standard 4**.

In general, all criteria are met, but at the same time some shortcomings are identified. Thus, the experts familiarized themselves with the documentation on the admission of residents, and it was established that professional associations of medical workers did not participate in the process of developing the residency admission policy.

Regarding the practice of academic advising, personal support for residents and the development of not only professional skills, experts interviewed residents and residency graduates, who confirmed care and assistance from mentors and supervisors. The organization has a resident development program that includes mentoring. Residents of the 3rd year of study are included in such advisory bodies as the educational and methodological council.

#### **4.2 Motivation**

The commission members were convinced that the CF "UMC" provides regular improvement in the pedagogical and professional competence of its employees. At the same time, a high level of professionalism, combined with modern material and technical equipment, is a powerful motivating incentive for students of PC and NO when choosing the CF "UMC" as a base for advanced training and specialization.

To develop the intellectual level of students and expand knowledge in various scientific fields, they take an active part in master classes, conferences at the republican and international level held by the CF "UMC".

The practice of academic advising, personal support of residents and the development of not only professional skills were assessed by experts through interviews. When conducting interviews with residents and graduates, the following information was obtained: clinical mentors conduct educational work with the resident doctors assigned to them on issues of improving their academic performance,

discipline and class attendance, and attracting them to participate in public life. The clinical mentor is appointed from among the teaching staff of the CF "UMC".

The employment rate of graduates of all residency programs in 2022 was 100%, which indicates the effectiveness of career development activities among residents.

#### 4.3 Number of students and listeners

For the period 2019-2023 193 residents were admitted to all educational programs. The educational organization analysed the need for practical healthcare specialists and thus formed an annual intake for the relevant residency specialties. On average, the number of residents per course is 8-10 people, depending on the specialty. This indicator corresponds to resource capabilities. Sources of information about the needs for specialists are the departments of the Ministry of Health of the Republic of Kazakhstan.

#### 4.4 Support and advice

For the purpose of social support for residents, there is a sufficient resource base (Internet, library, computer classes, and simulation class). The implementation of educational programs of postgraduate and additional education is ensured by every student's free access to information resources and library funds, the availability of teaching aids and syllabuses in all specialties.

Financial support for residents is provided through the issuance of a scholarship in the amount of 107 thousand tenge and additional financial support for residents, enshrined in the document on the rules for the appointment, payment and amount of state scholarships for students studying in educational organizations, approved by Decree of the Government of the Republic of Kazakhstan dated February 7, 2008 No. 116.

Psychological support for residents is provided by CF "UMC" provides support in obtaining foreign educational/research grants to resident doctors based on their interests, which is carried out confidentially.

#### 4.5 Representation of students and listeners

The experts were convinced during the visit that planning educational conditions, evaluation methods, and improving the educational process are based not only on regulatory documents, management decisions and suggestions from teachers, but also take into account the opinions of the residents themselves. For this purpose, the CF "UMC" has introduced sociological surveys, the questionnaires of which consist of questions regarding the schedule, teaching and evaluation methods, teaching conditions in clinics, the provision of methodological and information and communication materials, and relationships with teachers. The Department of Science and Education conducts surveys of resident doctors and teachers of residency programs. In the advisory body - EMC there is a representation of residents (2 residents of the 3rd year of study).

#### 4.6 Teaching strategies

Experts confirmed during the visit that the main training strategy in the organization is practice-oriented training in the workplace, "at the patient's bedside." Skills in working with medical information documentation systems are also developed. All resident activities are reflected in the portfolio and educational journals, as well as discipline reports. Each resident has an individual curriculum and privilege sheet, and has an individual or group research project. Residents and students are encouraged to participate in scientific and practical conferences, congresses, master classes, remote webinars and other training events. In 2023, work began on updating distance learning programs on the Moodle platform.

#### 4.7 Working conditions

Residents receive a monthly scholarship in accordance with the document Decree of the Government of the Republic of Kazakhstan dated October 10, 2022 N799 "On amendments to the Decree of the Government of the Republic of Kazakhstan dated February 7, 2008 No. 116 "On approval of the Rules for the appointment, payment and amount of state scholarships for students studying in educational organizations" In addition, during the visit and conversation with residents, it was established that they were given the opportunity to work outside of school hours, which is

reflected in the document - List of Privilege - this is a document permitting a resident who has access to patients at the UMC CF.

It should be noted that after night duty on weekdays, the resident doctor does not have the right to receive newly admitted patients and operate independently. On average, a resident is on duty at least 4 times per month in conjunction with medical staff, however, exceptions apply to residents who are pregnant or have a child under 6 months of age.

The educational organization has introduced elements of distance learning for residents, for example, during forced breaks in training, the CF "UMC" has all the conditions to provide distance learning, primarily theoretical materials. Thus, electronic professional platforms (ZOOM, etc.) are available to residency programs.

Conclusions of the EEC on the criteria. Complies with 22 standards: fully - 21, partially - 1 Recommendations for improvement identified during the external visit:

1) To involve professional associations in the process of developing residency admissions policies (Standard 4.1.4).

### Standard 5: TRAINERS 5.1 Recognition policy

In accordance with Article 51, Chapter 7 of the Law of the Republic of Kazakhstan "On Education," persons with special pedagogical or professional education in the relevant profile are allowed to engage in teaching activities. According to paragraph 7 of the State Compulsory Educational Standard of the Republic of Kazakhstan for residency in medical specialties, which was approved and put into effect by order of the Minister of Health of the Republic of Kazakhstan dated July 4, 2022 No KR MOH-63, a resident doctor works under the supervision of a mentor at residency bases during the discipline cycle and/or a module with regular assessment and feedback. Upon completion of the discipline cycle and (or) module, the student is certified in the manner established by the UMC Faculty of Sciences. A clinical mentor is appointed from among qualified practical healthcare specialists working at residency bases with at least 5 years of experience in the relevant specialty.

In order to verify the data of standard 5, during a meeting with the head of the HR department and during interviews with teachers, experts received an opinion on approaches to developing the pedagogical competence of teachers, motivation to work with residents, mentoring, which includes lectures and practical classes, joint management of patients, rounds with a resident doctor, participation in consultations, conferences, training on simulation equipment, preparation for a journal club, grand round, discussion of a clinical case.

Teachers of clinical specialties of the CF "UMC" are leading experts in the relevant areas of practical healthcare. The main staffs of the Academic staff of the CF "UMC" conducts educational activities: 13 Doctors of Science, 23 Candidates of Science, 3 Doctors with an academic PhD degree and 3 Masters of Science.

The clinical qualifications of teaching staff are determined by the presence of a specialist certificate, as well as the presence of a medical category. Members of the commission noted the consistently high level of categorization of the medical staff of the CF "UMC", despite the change in the absolute number of teaching staff over the past 3 years. So, in 2020, out of 75 people, the categorization was 81.6%, in 2021, out of 86 people - 79%, in 2022 out of 101 people - 78%, in 2023 out of 117 people - 70%.

Experts determined that faculty and residents have adequate time for teaching, mentoring, and learning. The work schedule of teachers is established in the Rules for the organization of the educational process, in the residency of the CF "UMC", approved by decision of the Board of March 29, 2021 No. 6. Working time is 7.5 hours. Teachers conduct seminars lasting 3 hours. There is time for clinical reviews, clinical rounds according to the internal regulations of the Centre.

#### 5.2 Obligations and development of postgraduate and additional education organizations

Planning of educational and supervisory work of teaching staff is carried out in accordance with standard educational programs. Every year, in accordance with the Rules for the Organization of the Educational Process, in the residency of the CF "UMC", approved by the decision of the Board of March 29, 2021 No. 6, the work of the teacher and curator is regulated, based on the order of the head of the CF "UMC", a list of academic staff and curators is approved.

Experts determined that teachers have sufficient time to teach, mentor, and learn. The work schedule of teachers is determined in the Rules for organizing the educational process in the residency of the CF "UMC", approved by decision of the Board of March 29, 2021 No. 6. Working time is 7.5 hours. Teachers conduct seminars lasting 3 hours; time for clinical discussions and clinical rounds is agreed upon with the internal regulations of the CF "UMC".

The motivation system for teachers and clinical mentors is provided by budget program 024 "Targeted Contribution to Nazarbayev University" under the "Technology Transfer" subprogram. Every year, through funding within the framework of this program, more than 50 employees improve their skills in the best foreign centres, and mentoring programs and master classes are organized with the involvement of international experts. In addition, the centres of the CF "UMC" conduct seminars, master classes, pathological conferences, and organize charity events for the diagnosis and treatment of complex patients. Clinical workers of the CF "UMC" participate in the work of associations and societies in their specialties.

Experts received answers about the teacher training program, which is conducted annually. All residency teachers have been trained over the past 5 years, as evidenced by the available certificates.

#### **5.3** Recruitment and selection policy for teachers

The composition of trainers and clinical mentors of the CF "UMC" is agreed upon with the heads of clinical departments, reviewed by the EMC, and approved by order of the head of the CF "UMC" or a person authorized by him annually, taking into account new admissions for the corresponding academic year.

The main indicators for the qualitative composition of academic staff conducting classes for residents are the following: the presence of an academic degree, academic title, practical experience, scientific and teaching work experience. The number and composition of academic staff are planned based on the needs of the educational process, the standard teaching load per teacher and student population.

The requirements for residency program teachers take into account the qualifications of practical healthcare specialists working at residency bases who have at least 5 years of experience in the relevant specialty. The Sedateness is 50 (43%), 76 people (65%) have the highest category, the first - 4 (%), the second - 2 (%).

There are 117 employees in total, of which 117 are full-time teachers, none part-time. The experts are familiar with the personnel policy and the Regulations on mentors. The work of a teacher and clinical mentor is regulated by the Rules for organizing the educational process in the residency of the CF "UMC", approved by decision of the Board of March 29, 2021 No. 6. The ratio of teachers and residents is 1:3.

In order to verify the data of standard 5, external experts obtained the opinions of teachers on personnel policies. The conversation with full-time academic teachers and clinical mentors included issues such as ethics and academic integrity, and also allowed the experts to learn about approaches to attracting staff from clinical sites to teach, about strategies and tactics for recruiting residents, information security of the educational program, and also to identify management problems and human resource development. It has been established that the principles of ethics and academic integrity of teachers of compliance by employees of the CF "UMC" with the worthy performance of their professional activities are reflected in the document Code of Business Ethics of the CF "UMC" approved by the minutes of the Board of the CF "UMC" No. 17 dated December 26, 2022. When talking with teachers, they confirmed their awareness of this issue 100%.

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When surveying trainers, it was found that the majority of 81.2% were completely satisfied with the organization of work and workplace in this educational organization, but 15.6% were partially satisfied. In this educational organization, trainers have the opportunity to engage in scientific work and publish the results of research work - 87.5% completely agree, 12.5% partially agree. Satisfied with wages - 40.6%, dissatisfied - 21.9%. Noting the possibility of career growth, 81.3% completely agree, 18.7% partially agree.

#### **5.4 Faculty Commitment and Development**

In order to verify the data of standard 5, during a meeting with the head of the HR department and during interviews with trainers, experts received an opinion on approaches to developing the pedagogical competence of trainers, motivation to work with residents, and mentoring.

The experts received answers about the CDP program for teachers, which is held annually and all teachers involved in the implementation of residency educational programs have been trained over the past 5 years. These events are funded by the university. An expert verified teacher certificates on topics such as "Methodology and educational technologies in residency" 41 hours, order No. 105-kb dated 10/09/23.

Experts have found that teachers initiate research topics for residents, and stimulate the need for additional training and independent work with literature and medical documentation. Members of the commission especially noted the 100% involvement of residents in the scientific projects of teachers.

In an educational organization, there is an opportunity for career growth and development of teacher competencies - 81.3% of surveyed teachers responded that they completely agreed with this statement, and 18.7% partially agreed with this. Studied in professional development programs - 43.8% less than 1 year ago, 34.5% more than 3 years ago, 15.6% more than 5 years ago and 3.1% answered "I don't remember when it was."

The organization implements social support programs for teachers - 40.6% answered that "yes, such programs exist," 6.3% of respondents answered that there are no such programs, and 34.48% of respondents do not know about it.

**Conclusions of the EEC on the criteria.** Complies with 8 standards: fully - 7, partially - 1. **Recommendations for improvement:** 

1) To optimize the ratio of teaching and clinical workload of teachers and clinical mentors (Standard 5.2.1.).

#### **Standard 6: EDUCATIONAL RESOURCES**

#### **6.1 Logistics and equipment**

Residents are trained at the CF "UMC"'s own clinical base, with a total capacity of 475 inpatient beds and 500 outpatient visits per shift, which combines two innovative medical centres: the Diagnostic Centre, the Centre for Maternity and Childhood, and the Republican Diagnostic Centre (RDC). There are 3 auditoriums, 2 conference rooms for seminars and journal clubs, 5 laboratories (clinical, biochemical, bacteriological, enzyme immunoassay, PCR), a library with 34 seats, a computer class and a test centre with 11 seats. In addition, the capacity of city multidisciplinary hospitals is used under contracts with clinical sites.

The experts visited the library, which has access for residents and employees. Total literature on paper is 1736 pieces.

There is access to international databases: PubMed, Up to Date, Medline Complete, Clinical Key, Access medicine, Clinical trials, Cochrane Library and access to the Republican Scientific and Technical Medical Library, JSC National "Centre for Scientific and Technical Information". Residents are aware of this. Before starting the corresponding discipline of the educational program, the resident receives a syllabus from the teacher and knows what skills he must acquire and develop during his training.

The material and technical base, including the library collection, is updated annually. The number of new arrivals over 5 years amounted to 480 units. The update affected the following: the

fleet of computer equipment was updated, a computer class was created, a local computer system Bitrix 24 was created, and uninterrupted operation of the Internet was ensured.

The material and technical equipment of the corporate foundation complies with JCI international standards, but there is a lack of simulators or phantoms for practicing practical skills in maxillofacial surgery, urology, ophthalmology, and ENT surgery.

During a conversation with representatives of the financial sector, it was found out that the application for the 2024 calendar year included financial resources for the purchase of the necessary equipment for the simulation centre.

#### **6.2 Training bases**

A review of resources showed that they correspond to the goals and objectives of educational activities, for example, clinical bases were visited: NSCMC, RDC, NSOC, NSCSC, with a total bed capacity of over 500, and employees of the educational organization ensure collegial and ethical relations with medical staff, management of the clinical base for achieving the final results of residents. A sufficient number of thematic patients, modern equipment is provided and demonstrates accessibility to students, and employees who simultaneously perform the roles of teachers and curators (mentors) provide high-quality training in compliance with ethics and deontology. Before starting the corresponding discipline of the educational program, the resident receives a syllabus from the teacher and knows what skills he must acquire and develop during his training. Our own clinical sites are accredited according to JCI standards.

During a visit to clinical sites, where experts examined the resources, their compliance with training programs, accessibility for teachers and residents, how modern this equipment is and meets the needs of students and practical healthcare. The experts received evidence of compliance with standard 6, as well as validation of the self-assessment report information.

There is a simulation room at the NSCMC and a simulation center at the NUSM, equipped with equipment where residents practice practical skills.

In order to validate the implementation of the self-assessment report data and obtain evidence of the quality of the programs, interviews were conducted with residents in the specialty. The experts asked questions about satisfaction with training, 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 in need, participation in "Journal clubs", availability of international professional databases literature. In general, residents are satisfied with the training, assessment methods, and purposefully entered this organization, because they believe that the educational organization has good resources, image and international connections, 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, demonstrated skills in working with information systems and answered questions from the chairman of the commission Turgunov E.M. and foreign experts Ziganshina L.E., Saatova G.M. on the interpretation of CT scans for lung diseases, cytological characteristics of hemoblastosis. Experts examined residents' documents (portfolios, resident assessment results, checklists, residents' survey results).

#### 6.3 Information technology

Experts evaluated the access of residents and teachers to the necessary web resources. There is a computer lab with an area of 22.0 m2 for 14 computers with Internet access and access to foreign databases of scientific and educational literature such as Elsevier, Web of Knowledge (THOMSON REUTERS), SPRINGER (SpringerLink), Clarivate Analytics, EBSCO: Medline Complete and DynaMed Plus, Wiley Online Library; BMJ, which provides resident doctors and students with the latest data on the achievements of medical science and practice, including in preparation for classes.

During self-study, residents use a wide base of information resources, which is reflected when visiting the library: Cochrane Library, CBS eBooks, EBSCO, BMJ Learning, BMJ Learning, "Doctor's

Consultant", "Student's Consultant", "Epigraph", "Aknurpress", There are also corporate subscriptions Web of Science (Clarivate), Scopus Elsevier, Science Direct.

During the visit, experts established that access to patient data and the healthcare information system is carried out through the AKGUN Medical Information System, which includes automation of clinic business processes from patient registration and hospitalization to discharge, examinations and appointments for patients, and generation of reporting forms. The system also includes a PACS module for archiving and transmitting diagnostic images. There is integration of the MIS with the information systems of the Ministry of Health of the Republic of Kazakhstan (RAP (Register of attached population), HB (hospitalization bureau), POC/UPS (Portal Outpatient care/Unified payment system), ERI (electronic register of inpatients)), as well as with the 1C and LIS "Ariadna" systems used in clinics. There is access to the Register of Pregnant and Women of Fertile Age, Cancer Registry and other information systems.

For faster communication between workers within centres, portable communications equipment (Dect) is used. Residents supervise 5-6 patients a day, including filling out the necessary documentation in information systems under the supervision of a teacher.

Methods for implementing advanced training programs using distance educational technologies (DET) have been introduced, in particular, since 2016 - an e-learning management system based on the Moodle platform.

During the commission's visit, all residents were at the clinical sites, and videos of previously conducted remote classes were watched. When preparing for classes, teachers use educational resources of the library (electronic textbooks, electronic manuals, and scanned educational literature), the Internet, as well as the results of their own scientific and research activities.

#### **6.4 Interaction with colleagues**

Experts attended a journal club meeting, where the results of teamwork of residents in all specialties were presented. Inter professional interaction is also carried out by signing an agreement between the resident doctor and the supervisor, which regulates the legal relationship between the resident physician and the scientific supervisor within the framework of mutual cooperation, and defines the fundamental conditions for joint activities.

The collegiality of the work of residents can be traced by participation in all areas of their activity, discussion of tactics of management, treatment of patients in the department and participation in pathological and clinical conferences, in various educational events (journal club, educational and clinical commission), scientific and practical conferences. Residents conduct health education and training activities among patients.

When asked whether there is a sufficient number of patients to supervise or assist in operations, 91.3% of residents answered in the affirmative.

Students have free access to patients at clinical sites and all conditions for improving their practical skills - 93.8% of teachers completely agree with this, and 6.2% partially agree.

#### **6.5 Formal types of training**

During the visit, members of the commission confirmed that the CF "UMC" ensures the participation of residents and students in regional, national and international training programs, conferences, scientific meetings, participation in research and organizational events, and other formalized types of postgraduate and additional education. In May 2019, one resident in the specialty "Neuropathy, including paediatric", 2nd year of study, completed a foreign internship at the University of Ljubljana, Slovenia. The department trained 30 employees of CF "UMC" in educational technologies (Order 21 - n/k dated June 21, 2019, order 29 n/k dated November 7, 2019). In addition, UPMC experts trained as part of the "Master in Clinical Teaching" master class, June 3-7, 2019 with NSCMC - 15 employees, with NCCR - 9 employees, with RDC - 3 employees, in 2022 87 employees participated in international and national conferences.

#### 6.6 Medical research and advances

The educational organization carries out research work in all areas, in accordance with Budget Program 024 "Targeted contribution to AEO "Nazarbayev University". On the basis of CF "UMC",

12 projects are being implemented in 2022 alone. In 2023, two projects of the CF "UMC" were funded by the Ministry of Education and Science of the Republic of Kazakhstan. In 2022, 42 articles were published in foreign journals, 38.1% of them in Q1 journals.

Over the past 5 years, by decision of the Research Council, Nazarbyev University was included in the list of organizations eligible to submit documents for grant funding under the CRP program. 4 applications were submitted for the CRP competition together with teaching staff and NU researchers. Physician's application is "Determining the role of the CTHRC1 protein in the invasiveness of synoviocytes in rheumatoid arthritis." PI - J. Kunz. Researchers Aitzhanova R.M., Tabenova A.A. received funding through the Nazarbayev University School of Medicine.

The experts especially noted that all residents of 1-3 years of study are involved in the implementation of scientific work or fragments in the form of scientific projects, the topics of which are approved at the EMC and at the end of the training period the results of scientific projects are approved. All information about scientific work is included in the resident's portfolio. At the same time, all residents are provided with access to the necessary resources to carry out scientific work.

The educational programs include topics where residents study research methods in medicine. In this case, the total hours are up to 4 credits.

During a conversation with residents, it was found out that they take an active part in the implementation of scientific work of clinical bases, in particular, residents participate in the scientific project "Registration study to record births in patients with endometriosis" (directed by Professor Milan Terzic and Bapaeva G.B. (1 May 2022 - April 30, 2027).

In the specialty "Urology and andrology for adults, children," it is planned to conduct research work in the field of kidney transplantation, also with the participation of residents.

62.5% of residents confirmed that they are currently engaged in scientific work under the guidance of their teacher or mentor, 3.75% are not engaged, 18.75% have begun planning research work, 12.5% are searching for a research topic, 1 59% of residents do not want to do research.

An interview with 12 teachers showed that there are no problems in managing education, depending on the specific base (admission of residents to equipment, a sufficient number of case patients, surgical procedures, time for maintaining medical records, independent work).

#### **6.7 Educational expertise**

The examination is carried out in the form of an analysis of the needs for specialists, an analysis of resident training methods, and the results allow us to draw conclusions about the quality of innovative changes in postgraduate education. During the visit, experts confirmed that the organization, in order to ensure the quality of the EP, has created an educational and methodological council, which includes representatives of students, teachers, leading clinical workers, administrative and managerial staff, management, and there is a quality management system service to monitor clinical performance indicators and minimizing medical errors, including those of students, which in turn improves the quality of training for resident doctors.

Evaluation and approval of educational programs and modules is carried out at the EMC. Control over the quality of implementation of educational programs is carried out in accordance with the internal audit plan and orders of the Deputy Chairman of the Board of the CF "UMC" supervising the educational process of the department of science and education.

As part of the residency program review, a 360 survey is conducted annually. The survey includes resident doctors of the 1st, 2nd and 3rd years of study of all specialties, teachers, and employers. The assessment uses a 10 point scale.

The examination is carried out in the form of an analysis of the needs for specialists, an analysis of resident training methods, and the results allow us to draw conclusions about the quality of innovative changes in postgraduate education. For example, the results of assessing the effectiveness of teaching methods and educational activities made it possible to include a Journal Club and an educational and clinical commission (Grand round) in training in all residency specialties on an ongoing basis.

According to the survey results, 73.8% of respondents were completely satisfied with the organization of teaching, 15.0% were partially satisfied.

#### **6.8 Training in other institutions**

Over the period of 5 years, under the budget program 024 "Targeted contribution to AEO "Nazarbayev University"", 17 employees of the CF "UMC" were trained abroad in 2021, 9 in 2022, 10 master classes were conducted in various clinical areas in 2020-2023.

The opportunity to train residents in other medical organizations is provided by concluded agreements and memorandums with foreign universities and research centres. In particular, on the basis of the republican centres, which are the organization's own clinical bases, high-tech care is provided to the population as planned, but there is no opportunity to train residents of various specialties on the provision of urgent and emergency medical care, purulent-infectious complications. Residents study these disciplines and modules of the educational program at City Multidisciplinary Hospital No. 2 and City Multidisciplinary Hospital No. 3. Residents also participate in academic mobility within the country. Experts have established that there is a document on the transfer and offset of learning results between educational organizations: paragraph 5 of the Rules for organizations of the educational process in the residency of the corporate foundation "University Medical Centre".

6 agreements and 19 memorandums were concluded with organizations, universities, associations, including JSC "National Scientific Cardiac Surgery Centre", JSC "Scientific Centre of Neurosurgery", MSI at the REM "City Multidisciplinary Hospital No. 2" of the Akimat of Astana, MSI at the REM "City Centre for Phthisiopulmonology" of the Akimat of Astana, MSI at the REM "City Centre for Phthisiopulmonology" of the Akimat of Astana, MSI at the REM "City Centre for Phthisiopulmonology" of the Akimat of Astana. Memoranda have been concluded with foreign clinics in Ghana, Turkey, Israel, Italy, Slovenia, Lithuania, and Korea. During 2019-2023, at the expense of funds from the corporate foundation "University Medical Centre", 26 resident doctors were sent to international conferences, forums, and congresses, of which 8 were sent to non-CIS countries.

Teachers of educational organizations actively participate in republican and international events. Thus, 30 teachers took part in the mentoring program "Implementation of international standards in the management and implementation of residency programs." Such participation made it possible to apply the information received in the educational process. For example, in the specialty of the educational program R01117 "Maxillofacial surgery for adults, children", scientific and practical events such as conferences and master classes are held on the topics "Surgical approach in the treatment of neoplasms of the head and neck", "Reconstructive plastic surgery for laryngeal stenosis", trachea and bronchi in children. Sliding tracheoplasty for tracheal stenosis in children," "Modern approaches to treatment methods for congenital and acquired malformations of the lower third of the face using innovative technologies in children".

Conclusions of the EEC on the criteria. Complies with 21 standards: fully -21. Recommendations for improvement: none

#### Standard 7: PROGRAMME EVALUATION

#### 7.1 Monitoring and evaluation mechanisms

During the visit, experts found that monitoring the educational program includes discussion among academic staff, residents, employers, mentors and other interested parties, which ensures transparency of the process and results. Evaluation of residency training is carried out at all levels of training, including CAD, DES and EMC. External level - through accreditation of educational programs.

Evaluation of the program begins with an analysis of its structure, where the mission, goal and final results of the program are analysed to assess their compliance with the needs of practical healthcare, modern trends in science and education, the goals and mission of the CF "UMC", the requirements of the State Compulsory Educational Standard and other regulatory documents.

The program is evaluated based on the expectations of all stakeholders in the educational process. Regular evaluation of the quality of the educational program is carried out by the DES using a competency-based approach and includes a system of evaluation forms "360 Degree Analysis" on a 10-point scale. For example, a survey of 39 residents of 1st, 2nd and 3rd years of training demonstrated the following: the maximum average value (8.77) among resident doctors is their understanding of the purpose and objectives of the training program and what is required of a resident doctor; The vast majority of respondents noted the possibility of mastering the necessary practical skills in the departments of the clinic (8.10) and the provision of the program with the number and necessary profiles of patients in the departments of the clinic (8.08); 8.00 points allocated by resident physicians to provide sufficient practice to improve clinical knowledge and practical skills; an average score of 7.88 was noted on the question of sufficient responsibility for making decisions and managing patients in accordance with the level of training; Resident doctors rated the opportunity to participate in scientific events and research at UMC as 7.96 points.

A survey of 117 faculty members conducted in 2023 showed that participating academic staff accurately and clearly understands the purpose and objectives of the residency program. However, 28.6% of them find enough time and desire to effectively train residents. The survey results show that only 57.2% of residents are independent, 42.8% need supervision when communicating with patients and consulting.

#### 7.2 Feedback

Experts have confirmed that educational organizations regularly collect feedback from teachers, residents, and employers in the form of questionnaires.

The survey is carried out according to the following types: "Teacher through the eyes of students", "Student satisfaction with the conditions and results of training", "Satisfaction with the infrastructure", "Graduate satisfaction with the quality of education", "freshman questionnaire". The report data is analysed, compared with real facts, cause-and-effect relationships are clarified, after which a decision is made to make changes to the organization of the educational process, EP.

To survey teachers, a questionnaire was developed that included 15 questions, rated on a ten-point scale and including three levels: (1) General evaluation criteria; (2) The level of effectiveness and information content of new educational activities; (3) Providing residents with various resources for training. The results of a survey of teachers conducted in 2023 showed that the average rating for three levels of questions was distributed as follows: (1) General evaluation criteria - 7; (2) Level of effectiveness and information content of new educational activities -6.3; (3) Provision of residents with various resources for training -7.7. The analysis showed that the teaching staff who participated in the survey accurately and clearly understand the purpose and objectives of the residency program.

The survey of residents is conducted once a year and is devoted to such topics as: the number and type of patients in the departments, responsibility for making decisions in the management of patients, the level of support and assistance from doctors, the level of effectiveness and informativeness of the educational activities of the residency program, access to modern literature and library, computer programs and simulation equipment, satisfaction with the residency program, level of support and referrals from residency department staff.

Thus, the results of a survey in 2023 according to the assessment of the teacher by residents showed that out of 42 teachers, 90.5% (38 people) were rated at "9-10" points; "7-8" points - 7.2% (3 people); "5-6" points - 2.3% (1 person). The rating of teachers excluding third-party organizations (29 people) was distributed as follows: "9-10" points - 86.3% (25 people); "7-8" points - 10.3% (3 people); "5-6" points - 3.4% (1 person). A total of 39 resident doctors participated in the survey, 28% of whom did not answer all questions. 79% of respondents positively assess the level of support and assistance from doctors, and 21% consider it insufficient. It is also worth noting that 81.1% of resident doctors are considering the possibility of participating in scientific events and research at the CF "UMC".

#### 7.3 Stakeholder engagement

The interview with 9 employers was conducted online and included questions such as: knowledge of the university's mission, participation in the development of the mission and proposals for the strategic plan, participation in the work of advisory bodies, satisfaction with the basic

knowledge and skills of residents, participation in resident training through mentoring, providing departments and residents with the necessary resources for practical training and the formation of clinical thinking, problems of interaction in general, \_\_\_\_\_\_% employment of residency graduates, etc.

It has been established that CF "UMC" annually holds an open day for applicants wishing to enrol in residency programs. Representatives of public professional associations organize scientific and practical conferences on current issues of medical education and specialty.

Thus, the participation of a wide range of stakeholders in the assessment and improvement of educational programs is ensured by authorized bodies in the field of education and health care, representatives of the public, professional organizations, as well as persons and structures responsible for postgraduate education.

The results of the evaluation of the educational program are announced at a meeting of the Educational and Methodological Council of the CF "UMC".

**Conclusions of the EEC on the criteria.** Complies with 8 standards: fully -8. **Recommendations for improvement:** none

#### **Standard 8: GOVERNANCE AND ADMINISTRATION**

#### 8.1 Documentation and needs for educational planning

Residency training is carried out in accordance with the requirements of such regulatory rules regarding the admission of residents as the Rules for admission to residency of the corporate foundation "University Medical Centre". Approved by the decision of the Board of the corporate foundation "University Medical Centre" on March 1, 2018 No. 5 Changes and additions: 28 April 2023 No. 7. Evaluation of knowledge and skills is carried out on the basis of the "Instructions for the development of educational and methodological documentation and a system for evaluating the educational achievements of resident doctors of the corporate foundation "University Medical Centre", Approved by the decision of the Board of the corporate foundation "University Medical Centre" on May 13, 2021 Protocol No. 2 (as amended from September 15, 2023, Protocol No. 15).

To implement the educational program in the educational organization, there is an organizational structure in which the educational sector is represented "Regulations on the Department of Education" Annex No. 7 to the minutes of the Board of the Corporate Foundation "University Medical Centre" on August 01, 2023 No. 11 Approved by the decision of the Board of the Corporate Foundation "University Medical Centre" on August 01, 2023 No. 11.

The experts reviewed the documents on completion of resident training, including the results of the final certification. A certificate of completion of residency is issued to residents based on the results of the final certification and contains information about the volume of completed disciplines, credits and hours, reflecting grades according to the point-rating system.

To ensure the quality of postgraduate education, "Rules for organizations of the educational process in the residency of the corporate foundation "University Medical Centre" were developed and approved by decision of the Board of the corporate foundation "University Medical Centre" dated March 29, 2021 No. 6.

The program is known through the official website of the CF "UMC", the internal corporate mail of the CF "UMC", a WhatsApp group, on the Bitrix 24 intranet, which provides information on educational residency programs for applicants, a class schedule, an academic calendar, a catalogue of elective disciplines , syllabuses, etc., which ensures accessibility and transparency of the educational process.

#### 8.2 Academic leadership

The responsibilities and duties of the management and employees for postgraduate medical education are determined, which are assigned to the Board of the CF "UMC" (chairman - MD, Pya Yu.V.). Residency issues are supervised by Deputy Chairman of the Board N.K. Khamzina and enshrined in Order No. 04-n/k dated 02/07/2023 "On the distribution of duties, areas of authority and responsibility between members of the Board and other officials of CF "UMC". Clinical and academic

departments and the Department of Education are directly responsible for organizing residency programs. The Department of Education is managed by Syzdykova A.A.

Transparency of management and decision-making in the educational process is ensured by discussion of educational and methodological documentation at meetings of the EMC and, after receiving their positive conclusion, it is approved by the supervising director. Based on the order of the Deputy Chairman of the Board of the CF "UMC" dated June 14, 2023 No. 09 -n/k, the composition of the EMC includes the Chairman represented by the Deputy Chairman of the Board, the Deputy Chairman of the EMC represented by the Director of the Department, 18 members from among the administrative and managerial staff of the CF "UMC" and representatives of practical health care of 4 centres, as well as the secretary of the EMC.

To the survey question "Do the heads of the organization listen to your opinion regarding issues related to the educational process, research work, clinical work," 84.4% of teachers answered that systematically, 9.4% answered "sometimes", 0% "quite rarely", 0% "never", no answer -6.2%.

#### 8.3 Allocation of budget and resources for education

During the visit, members of the commission revealed that the department responsible for planning and distribution of finances in residency programs is the financial and economic department under the leadership of the managing director for finance in accordance with order No. 48-n/k dated May 24, 2018. Financing of the residency program depends from the formation of an annual state order for the training of specialists with higher and postgraduate education.

Experts have confirmed that the financial plan is consistent with the strategic plan. The share of funding for residency programs, taking into account the expansion of residency specialties, increased from 46,439,940.7 in 2021 to 109,963,106.39 in 2023. The most funds are spent on the purchase of books, simulation equipment purchased, and participation of residents in conferences and internships. A financial report is provided annually, which demonstrates the distribution of educational resources in accordance with needs and targeted coverage of all types of expenses for the implementation and development of the residency program.

#### **8.4 Administration**

The staffing schedule of departments providing residency educational programs is approved annually, taking into account changes in the number of residents. According to Article 52 of the Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 No. 319-SH, the total number of teaching staff is formed based on the average ratio of teachers to residents of 1:3. There are an appropriate administrative (10 people) and teaching (206 people) staff, including management.

Members of the commission confirmed that in order to effectively manage the educational process, all employees of the education department have undergone advanced training.

Experts have established that the quality management system (QMS) includes regular internal and external audits, including those providing a residency program for processes. The quality and safety management department (QSMD) is responsible for the implementation and monitoring of the QMS. Teachers are aware of the QMS, which is confirmed during their interviews. An evaluation of the administration and management of the educational process is carried out by identifying priority areas for improvement and carrying out quality improvement activities, identifying high-risk areas, and submitting proposals on issues that require management decisions of the CF "UMC" for discussion by the Board of Directors of the CF "UMC".

#### 8.5 Requirements and regulations

During the analysis of documentation, experts established that CF "UMC" implements educational services on the basis of the Law of the Republic of Kazakhstan dated January 19, 2011 No. 394-IV "On the status of "Nazarbayev University", "Nazarbayev Intellectual Schools" and "Nazarbayev Foundation", with In this regard, in accordance with Article 8 of the Law "On the status of Nazarbayev University," organizations carry out educational activities without a license.

Members of the commission confirmed the presence of documents regulating the educational activities of CF "UMC": Rules for organizing the educational process in residency, approved by decision of the Board of March 29, 2021 No. 6; Regulations on the Department of Education Annex

No. 7 to the minutes of the Board 08/01/2023 No. 11; Instructions for the development of educational and methodological documentation and a system for evaluating the educational achievements of resident doctors of the CF "UMC" Protocol No. 2 (as amended on September 15, 2023) and the corresponding standard operating procedures were approved by the decision of the Board.

Conclusions of the EEC on the criteria. Complies with 13 standards: fully -13. Recommendations for improvement identified during the external visit: none

#### **Standard 9: CONTINUOUS RENEWAL**

During the visit, it was established that the CAD and DE are responsible for the process of continuous improvement of the educational program. As part of continuous improvement of work, a departmental report is heard annually at a meeting of the Department of Internal Affairs, which contains an analysis of activities. The procedure for updating the organizational structure is carried out as necessary. In connection with the changes in the State Compulsory Educational Standards, curricula and syllabuses for residents have been revised, and internal regulatory documents are being revised to bring them into line with the new established requirements.

The organization commits resources annually to continuous improvement. Evaluation and monitoring of the implementation of educational programs also made it possible to identify such an area for improvement as the further development of teaching potential in the field of educational technologies. For example, in 2023, 43 residency teachers received certificates for completing advanced training courses in educational technology.

To purposefully improve the educational process, sociological research is carried out, including "Analysis 360", and literature on postgraduate medical education is also studied. In the process of this analysis, approaches to teaching in residency were revised, and such teaching methods as "Journal Club" and "Educational and Clinical Commission" were introduced. The fleet of computer equipment has been updated, a computer class has been created on the basis of the National Research Centre for Medical Sciences with 11 computers, and the website of the CF "UMC" has been improved.

**Conclusions of the EEC on the criteria.** Comply out of 5 standards: fully - 5, partially - 0, do not comply - 0.

Recommendations for improvement: none

Thus, during the external institutional evaluation, compliance with 119 accreditation standards was established, including 86 basic standards and 33 improvement standards. There are partially met 5 basic standards and 0 improvement standards. No non-compliance with standards has been identified.

### 5. Recommendations for improving the institutional activities of the educational organization of the Corporate Foundation "University Medical Centre":

- 1. To ensure that grades are given according to the developed evaluation system in accordance with the "Instructions for the development of educational and methodological documentation and the system for assessing the educational achievements of a resident physician" UMC. According to the rules for organizing the educational process in the residency of the CF "UMC" 03/29/21, the grades of the current, intermediate and end-of-course assessment in alphanumeric format (Standard 3.1.1.) must be entered in the resident progress log.
- 2. Test tasks should be reviewed in accordance with the qualification requirements for residents. Implement an automated system for determining the validity and reliability of test items (Standard 3.1.4).
- 3. To introduce a unified electronic journal for recording the progress of residents and students of advanced training programs (Standard 3.2.1).

- 4. To involve professional associations in the development of residency admissions policies (Standard 4.1.4).
- 5. To optimize the ratio of teaching and clinical workload of teachers and clinical mentors (Standard 5.2.1.).



#### 6. Recommendation to the ECAQA Accreditation Council

The members of the EEC established the compliance of the Corporate Foundation "University Medical Centre" with the Accreditation Standards and came to a unanimous opinion to recommend that the ECAQA Accreditation Council accredit this organization for a period of 5 years.

	Full name	Signature
Chairperson of EEC	Turgunov Yermek Meiramovich	A.
Foreign Expert	Ziganshina Liliya Yevgenevna	в.Е.Зиниси
Foreign Expert	Saatova Guli Mirakhmatovna	Rec-
Academic Expert	Zhantelieva Lyazzat Asanovna	de
Academic Expert	Madyarov Valentin Manarbekovich	
Academic Expert	Idrisov Alisher Saugabaevich	Magned
Academic Expert	Ramazanova Sholpan Khamzaevna	and
Academic Expert	Dolmatova Irina Anatolyevna	Breeas"
Academic Expert	Arinova Saule Pasevnoevna	Ko kasada
Academic Expert	Karibaeva Dina Orynbasarovna	Mrs/
Academic Expert	Apbasova Saulesh Akhatovna	Str
Academic Expert	Menchisheva Yulia Alexandrovna	Mary
Resident Expert	Yerkinov Yerbolat	Off
Resident Expert	Orynbay Aizere Sauletkyzy	~

Annex 1.

Quality profile and criteria for external institutional evaluation of the Organization for postgraduate education and continuous professional development of healthcare professionals (summarization)

		70			Grade	
№ Standard	Criteria for evaluation	Number of standards	BS*/SI	Totally coincides	Partially comply	Does not comply
1.	MISSION AND OUTCOMES	12	7/5	7/5		
2.	EDUCATIONAL PROGRAMME	24	19/5	19/5		
3.	COMPETENCY ASSESSMENT	11	10/1	7/1	3/0	
	AND DOCUMENTATION					
4.	TRAINEES AND LISTENERS	22	17/5	16/5	1/0	
5.	TRAINERS	8	5/3	4/3	1/0	
6.	EDUCATIONAL RESOURCES	21	13/8	13/8		
7.	PROGRAMME EVALUATION	8	6/2	6/2		
8.	GOVERNANCE AND	13	9/4	9/4		
	ADMINISTRATION					
9.	CONTINIOUS RENEWAL	5	5/0	5/0		
	Total:	124	91/33	86/33	5/0	0/0
			124		124	

# List of documents studied by members of the EEC as part of an external evaluation of the educational organization Corporate Foundation "University Medical Centre"

№	Names of documents	Quantity
1.	Syllabuses	9
2.	Working curriculum	9
3.	Schedule	9
4.	Job descriptions of a resident doctor	1
5.	Privilege sheets for all residency programs	9
6.	Catalogue of elective disciplines for the 2023-2024 academic year	9
7.	Academic calendar for 2023-2024	1
8.	Rules for organizations of the educational process in the residency of the corporate foundation "University Medical Centre" Approved by the decision of the Board of the corporate foundation "University Medical Centre" dated March 29, 2021 No. 6	1
9.	Instructions for the development of educational and methodological documentation and a system for evaluating the educational achievements of resident doctors of the corporate foundation "University Medical Centre" Approved by the decision of the Board of the corporate foundation "University Medical Centre" on May 13, 2021, Minutes No. 2 (as amended on September 15, 2023) protocol No. 15	1
10.	Educational program in residency specialties	9
11.	The procedure for selecting and sending resident doctors of the corporate foundation "University Medical Centre" for internship. Approved by the Educational and Methodological Council on September 15, 2023. Protocol No. 15	1
12.	Regulations on the Educational and Methodological Council of the Corporate Foundation "University Medical Centre"	1
13.	Rules for admission to the residency program of the corporate foundation "University Medical Centre". Approved by the decision of the Board of the Corporate Foundation "University Medical Centre" on March 1, 2018 No. 5 Changes and additions: June 26, 2019 No. 14, March 5, 2021 No. 5, April 20, 2022 No. 5, April 28, 2023 No. 7	1
14.	Order on approval of academic staff and clinical mentors in the residency specialty of the corporate foundation "University Medical Centre" Order No. 29 z/k dated 09/22/2023	1
15.	REGULATIONS on the Department of Education Annex No. 7 to the minutes of the Board of the Corporate Foundation "University Medical Centre" August 01, 2023 No. 11 Approved by the decision of the Board of the Corporate Foundation "University Medical Centre" August 01, 2023 No. 11	1
16.	Agreement on the provision of paid services for conducting educational events under the "Residency" program of the corporate foundation "University Medical Centre" Agreement with the National Research and Educational Centre No. DO-2060 dated 11/08/2023	1
17.	Agreement on the provision of paid services for conducting educational events under the "Residency" program of the corporate foundation "University Medical Centre" NSMC Agreement No. DO-2100 dated	1

	10.20.2023	
18.	Agreement on the provision of paid services for conducting educational	1
	events under the "Residency" program of the corporate foundation	
	"University Medical Centre" Agreement NSCSC No. DO-730 dated	
	08/30/2023	
19.	Agreement on the provision of paid services for conducting educational	1
	events under the "Residency" program of the corporate foundation	
	"University Medical Centre" Agreement with the "MSI at the REM "City	
	Centre of Phthisiopulmonology" No. 994 dated 04/26/2023	
20.	Agreement on the provision of paid services for conducting educational	1
	events under the "Residency" program of the corporate foundation	
	"University Medical Centre" Agreement with the City Children's Hospital	
	No. 3 from DES-180 dated 01/24/2023	
21.	Agreement on the provision of paid services for conducting educational	1
	events under the "Residency" program of the corporate foundation	
	"University Medical Center" Agreement with City Hospital No.2 DES-	
	DES-129 dated 01/19/2023	
22.	Strategic development plan for the corporate foundation "University	1
	Medical Centre" for 2019-2023.	
23.	Residents' portfolio	12
24.	Scientific projects of residents	12
25.	Staff of academic staff. Annex 7, Decision of the Board of the CF "UMC"	1
	dated 04/21/2023 No. 6	
26.	Regulations on the Journal Club. Approved by the decision of the EMC	1
	dated April 28, 2018, No. 2	

Visit program of the External Expert Commission of the NU "Eurasian Centre for Accreditation and Quality Assurance in Education and Healthcare" (ECAQA) of the Corporate Foundation "University Medical Centre" as part of the institutional external evaluation and accreditation of residency specialty programs Astana, Kerey Zhanibek Khandary St., 5/1, November 27-29, 2023 (Monday-Wednesday)

Time	EVENT	NOTE
	November 17, 2023	
15:00-16:30	Preliminary meeting of all members of the External Expert Commission (EEC) Acquaintance, distribution of responsibilities of EEC members. A brief overview of reports on self-assessment of educational programs of residency specialties, discussion of the results of the review and key issues. Discussion of the program and work schedule of the EEC	Online
	The purpose of the EEC: external institutional assessment and evaluation of residency programs in the following specialties:	
	<ol> <li>Allergology and immunology for adults, children;</li> <li>General surgery;</li> </ol>	
	3) Pathological anatomy;	
	4) Rheumatology for adults, children;	
	5) Endocrinology for adults, children;	
	6) Otorhinolaryngology for adults, children;	
	7) Ophthalmology for adults, children;	
	8) Urology and andrology for adults, children;	
	9) Maxillofacial surgery for adults, children.  November 26, 2023 (Sunday) - arrival of EEC members	
	Day one – November 27, 2023 (Monday)	
00.45		Towns of marking and
08:45	Gathering of EEC members. Meeting room for members of the EEC is at the National Scientific Centre for Maternity and Childhood CF "UMC", Astana, Turan Ave., 32	Transport, meeting and accompaniment
8:45-9:00	Meeting of EEC members.	NSCMC CF "UMC",
$(15^{\prime})$	Discussion of the program and visit schedule on the 1st day of the visit to the CF "University Medical	Astana, Turan Ave., 32,
	Centre"	room 1017 (room may
		change)

9:00-9:20 (20')	Meeting of the chairman and members of the EEC with the management of the CF "University Medical Centre"  Chairman of the Board is Professor Pya Yuri Vladimirovich.			NSCMC CF "UMC", 3rd floor, library room	
				Standards 1,6,7,8,9	
	Familiarization with the purposes of the	Familiarization with the purposes of the visit and the Visit Program to CF "UMC."			
9:25-09:55	<b>Meeting with the Director of the Dep</b>	artment of Educati	ion Syzdykova Alm	na Alibekovna	At the same place
(30')					
	EEC 1 EEC 2				
10:00-10:30	Meeting with managers of additional	<b>education</b> Meeting with the <b>te</b>		echnology transfer manager	At the same place
$(30^{\prime})$	Olkhovik Svetlana Vladimirovna,			Birzhankyzy	Standards 2,6-9
	Shintaeva Sabira		Studying documen	tation on foreign partnerships	
			and mentoring pro		
			Demonstration of the capabilities of the		
	electronic library				
10:30-10:45	EEC meeting. Exchange of opinions	· · · · · · · · · · · · · · · · · · ·			
	Meeting with directors of clinical and	d academic departn	nents (CAD)		
	EEC 1	EE	C 2	EEC 3	
10:50-11:35	<ul> <li>Director of the Department of</li> </ul>	<ul> <li>Director of the Department of</li> </ul>		<ul><li>Director of the</li></ul>	NSCMC CF "UMC", 3rd
$(45^{\prime})$	Pediatric Surgery – Dzhenalaev	Internal Medici	ne – Nabiev Altai	Department of	floor, conference room
	Damir Bulatovich	Nugmanovich		Laboratory Medicine,	
	<ul> <li>Director of the Department of</li> </ul>	<ul> <li>Director of the I</li> </ul>	Department of	Pathology and Genetics	Standards 2,5,6,9
	Surgery – acting Bikhanov	Women's Health - Bapaeva Gauri		- N. Tanko Matthew	
	Nurzhan Aktleuovich	Billakhanovna		<ul> <li>Director of the</li> </ul>	
	<ul> <li>Director of the Department of</li> </ul>	<ul> <li>Director of the Department of</li> </ul>		Department of	
	Anesthesiology and Intensive	Pediatrics - Ivanova-Razumova		Radiology and Nuclear	
	Care – Ibraev Talgat Yergalievich	Tatyana Vladimirovna		Medicine – Dautov	
				Tairkhan Bekbulatovich	
11:35-11:50	EEC meeting. Exchange of opinions				
	EEC 1	EE	C 2	EEC 3	
11:50-12:35	Attending a seminar	Attending a journal	club meeting	Visiting residents at their	Standards 2,3,4,6,7
$(45^{\prime})$				workplace	
12:35-12:50	EEC meeting. Exchange of opinions				
12:50-13:55	Lunch break				
14:00-14:45	EEC 1	EE	C 2	EEC 3	

(45')	Interview with 1st year residents	Interview with residents 2-3 years of study		Interviews with students of additional non-formal education programs	NSCMC CF "UMC", 3rd floor, conference room <i>Standards</i> 2,3,4,5,6,7
	EEC 1	EF	EC 2	EEC 3	
14:50-15:35	Interviews with teachers (surgical	Interviews with teachers (paediatric		Interviews with teachers	Standards 1,2,3,5,6,7,8
$(45^{\prime})$	specialties)	and internal medicine specialties)		(other specialties)	
15:35-15:55	EEC meeting. Exchange of opinions				
	EEC 1		EEC 2		
16:00-16:50 (45 <sup>/</sup> )	Visiting of a computer class, medical c	center, food center Library, 3rd floor, b		block F.	Standards 2,6,8,9
16:50-17:35 (35 <sup>/</sup> )	Interviews with graduates of residency	programs		At the same place Standards 2,4,5,7,9	
17:35-18:00	Final meeting of the EEC based on the results of the external evaluation on the 1st day of the visit				
	Day two – November 28, 2023 (Tuesday)				
08:45	Gathering of EEC members. Meeting room for members of the EEC is at the National Scientific Centre for Maternity and Childhood CF "UMC", Astana, Turan Ave., 32				
8:45-9:00	Meeting of EEC members.				
(15 <sup>1</sup> )	Discussion of the program and visit schedule on the 2nd day of the visit to the CF "University Medical Centre"				
	Visiting clinical sites for resident training				
	EEC 1		EC 2	EEC 3	
9:00-12:30	- JSC "National Scientific	– "National So	cientific Center for	- "Republican Diagnostic	Standards 2,5,6,7
	Cardiac Surgery Center"	Motherhoo	od and Childhood"	Center"	
		1,13,113,113		- LLP "National Scientific	
	<ul> <li>JSC "National Center for</li> </ul>	<ul> <li>Departments</li> </ul>	s of therapeutic	Oncology Center"	
	Neurosurgery"	profile (all	ergology,	<ul><li>Departments of</li></ul>	
		immunolog	gy, rheumatology,	Radiology and Nuclear	
		endocrinol	ogy)	Medicine	
12:30-12:45	EEC meeting. Exchange of opinions				
12:45-13:00	Questioning of teachers and students			Standards 1,2,4,5,6,7,9	
13:00-14:00	Lunch break				
14:00-14:35 (35 <sup>/</sup> )	Meeting with representatives of support services (HR, financial sector)			NSCMC CF "UMC", 3rd floor, library hall	

			Standards 6,8,9	
14:40-15:20	Visiting of the simulation center (room)		Стандарты 2,3,6,7	
15:20-15:35	EEC meeting. Exchange of opinions.			
	Studying of the educational and methodological docum			
15:40-17:40	Documents in the context of institutional accreditation,	Documents on residency educational programs		
	including residency and continuing and non-formal	(9)		
	education	Studying the CF "UMC" website		
17:40-18:00	Final meeting of the EEC on the results of the external eva			
	Day Three – November 29, 2023 (Wednesday)			
9:00	Gathering of EEC members at the National Scientific (	Astana, (Turan Ave., 32)		
9:00-9:15	Meeting of EEC members.		NSCMC CF "UMC", 3rd	
			floor, library hall	
			Standards 6,8,9	
9:15:9:45	Additional meetings with CF "UMC" employees at the req			
9:45-10:30	Studyingof the educational and methodological document			
10:30-13:00	Design of the EEC report, development of recommenda			
	Quality profiles and criteria for external institutional asse			
	programs for compliance with ECAQA accreditation stand			
13:00-14:00	Lunch break			
14:00-16:00	Final discussion of the results of the external evaluation - ins			
	"UMC" residency specialties for compliance with accreditat			
1.00.1.00	for the UMC and on recommendations for the ECAQA Acc			
16:00-16:30	Familiarization of the management of CF "UMC" with the results of work and recommendations for		conference room, 3rd	
16:30-17:00	accreditation	floor, NSCMC		
	Announcement of the results of the work of the EEC			
17:00-18:00	Completing the work of the EEC			
	Departure from CF "UMC"			