

To the Accreditation Council  
of the Eurasian Centre for  
Accreditation and Quality Assurance  
in Education and Healthcare  
21.12. 2023

**REPORT  
OF AN EXTERNAL EXPERT COMMISSION ON THE RESULTS OF  
EDUCATIONAL PROGRAM EVALUATION  
ENDOCRINOLOGY FOR ADULTS, CHILDREN  
FOR COMPLIANCE WITH THE ACCREDITATION STANDARDS OF  
POSTGRADUATE EDUCATION PROGRAMS (RESIDENCE SPECIALTIES)  
OF MEDICAL EDUCATION ORGANIZATIONS CORPORATE FUND  
“UNIVERSITY MEDICAL CENTER”**

**external expert evaluation period: November 27-29, 2023**

**Almaty, 2023**

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### LIST OF SYMBOLS AND ABBREVIATIONS

Abbreviation	Designation
AIS	Automated information system "Polyclinic"
DET	Distance educational technologies
JC	Journal club
CF	Corporate Fund
End-of-course assessment	End-of-course assessment
RW	Research work
IEP	Individual education plan
CF "UMC"	CF "UNIVERSITY MEDICAL CENTER".
NSCOT	National Scientific Center for Oncology and Transplantation
PD	Profile discipline
PBL	Problem-Based Learning
WC	Working curriculum
SOP	Standard Operating Procedures (SOP, Standard Operating Procedure)
ECC	Educational and Clinical Commission
EMC	Educational and methodological council
NUSM	Nazarbayev University School of Medicine
EDI	Electronic database of inpatients
Bitnix HIS	Bitnix Hospital Information System
JCI	Joint Commission International for accreditation of healthcare organizations in the field of quality and patient safety around the world
UPSOM	University of Pittsburgh 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 evaluation of the residency educational program in the specialty “Endocrinology for adults, children” during the period November 27-29, 2023, with the following composition:

<b>№</b>	<b>Status as part of the EEC</b>	<b>Full name</b>	<b>Academic degree/title, position, place of work/place of study, course, specialty</b>
1	Chairman	Turgunov Yermek Meiramovich	Doctor of Medical Sciences, Professor, Vice-Rector for Scientific and Clinical Work of the NJSC “Karaganda Medical University”.
2	Foreign expert	Ziganshina Liliya Yevgenevna	Doctor of Medical Sciences, Professor of the Department of Epidemiology of the Russian Medical Academy of Continuing Professional Education.
3	Foreign expert	Saatova Guli Mirakhmatovna	Doctor of Medical Sciences, Professor, Head of the Department of CardioRheumatology of the Institution “National Research Center for Maternal and Child Health (NRCMCH)” of the Ministry of Health of the Kyrgyz Republic (MOH RK), Chief Rheumatologist of the Ministry of Health of the Kyrgyz Republic.
4	Academic expert	Zhantelieva Lyazzat Asanovna	Doctor of Medical Sciences, Deputy Chairman of the Board for Research Work of JSC “Scientific Center 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 anesthesiology and resuscitation of the National Educational Institution “Kazakh-Russian Medical University”.
6	Academic expert	Idrisov Alisher Saugabaevich	Doctor of Medical Sciences, Associate Professor of the Department of Family Medicine No. 2 of the 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 of the Karaganda Medical University.
10	Academic expert	Karibaeva Dina Orynbasarovna	Candidate of Medical Sciences, Associate Professor of the Department of Fundamental Medicine of Al-Farabi Kazakh National University.
11	Academic expert	Apbasova Saulesh Akhatovna	Candidate of Medical Sciences, assistant at the 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 the department of surgical dentistry at the Kazakh National Medical University named after S.D. Asfendiyarov.
13	Resident expert	Yerkinov Yerbolat	Resident of the first year of study in the specialty "Angiosurgery, including children's" LLP "National Scientific Oncology Center".
14	Resident expert	Orynbay Aizere Sauletkyzy	Resident of the second year of study in the specialty "General Surgery" of the NJSC "Astana Medical University"
15	ECAQA Observer	Sarsenbaeva Saule Sergazievna	Doctor of Medical Sciences, MBA, Professor, General Director of the National University “Eurasian Center for Accreditation and Quality Assurance in Education and Healthcare.”
16	ECAQA Observer	Umarova Makpal Aldibekovna	Head of the Accreditation and Monitoring Department of the National Institution “Eurasian Center for Accreditation and

			Quality Assurance in Education and Healthcare”.
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The EEC report includes a description of the results and conclusion of an external evaluation of the educational program “Endocrinology for adults, children” for compliance with the Accreditation Standards for postgraduate education programs (residency specialties) of medical educational institutions and conclusions (hereinafter referred to as the Accreditation Standards), recommendations of the EEC for further improvement of approaches and conditions for the implementation of the above “Endocrinology for adults, children” educational program and recommendations for accreditation for the ECAQA Accreditation Council.

## 2. General part of the final report

### 2.1 Presentation of the residency educational program in the specialty “Endocrinology for adults, children”

Name of organization, legal form of ownership, BIN	Corporate Fund "University Medical Center"
Management Body	Board of the Corporate Fund
Full name of the first manager	Pyra Yuri Vladimerovich
Date of creation	29.11.2023
Location and contact details	Republic of Kazakhstan Astana, Kerey Zhanibek khandar, 5/1, 8th floor, room 820/1, +7 7172 692565, Alma.Syzdykova@umc.org.kz
State license for educational activities in residency (date, number)	Non-profit Institution “Eurasian Center for Accreditation and Quality Assurance in Education and Healthcare” 09.11.2018 – 08.11.2023 No. IA00001
Information about branches, subsidiaries (if any)	Diagnostic Center, Center for Maternity and Childhood
Year of commencement of the accredited educational program (EP)	2021 “Endocrinology for adults, children”
Duration of training	2
Total number of graduates since the beginning of the EP implementation	1
Number of residents in the EP since the beginning of the current academic year	9
Full-time teachers/part-time teachers involved in the implementation of the EP	The total number of teachers is 8, including full-time teachers - 8, part-time teachers - 0. Sedateness,% - 25 Categorization, % - 62.5
Website Instagram	<a href="https://umc.org.kz/">https://umc.org.kz/</a> <a href="https://www.instagram.com/umc.clinics?igsh=MW12NwVwbGgzdGFmOQ==">https://www.instagram.com/umc.clinics?igsh=MW12NwVwbGgzdGFmOQ==</a>

Facebook with active pages

<https://m.facebook.com/umc.clinics>

In 2021, the implementation of an educational residency program in the specialty “Endocrinology for adults, children” began. This year, 18 residents are being trained under this program. In 2023, there was the first graduation of one resident in the specialty “Endocrinology for adults, children.” There are 9 people studying in the 1-year residency and 9 residents in the 2-year residency. Faculty serve as mentors to residents. The Academic staffs include 8 employees. Training is conducted at three innovative medical clinical bases: National Research Center for Maternity and Childhood, Republican Diagnostic Center, National Scientific Cardiac Surgery Center. At the University Medical Center Corporate Foud, work is built through the integration of clinical, educational and research activities based on international standards and in collaboration with the University of Pittsburgh of School of Medicine (UPSOM) and its medical center (UPMC). The Corporate Foud "University Medical Center" strives to become the first integrated academic medical center (AMC) in the Republic of Kazakhstan. Residents, according to the order for assigning mentors, 3 to 2 residents are assigned to each teacher. Taking into account the capabilities of the autonomous academic medical center Corporate Foundation "University Medical Center", residents receive a wide range of professional competencies. The educational process of residents uses innovative, research-based, educationally supportive and stimulating techniques to present high-quality clinical practice that is effective from a modern point of view. The Corporate Foundation “University Medical Center” has created an integrated academic environment for medical academic activities, namely for training specialists in the specialty “Endocrinology for adults, children”. A 2-year resident gave a presentation at an international conference and has a publication with a non-zero impact factor.

## **2.2 Information about previous accreditation**

To date, accreditation of the educational program “Endocrinology for adults, children” has not been carried out.

## **2.3 Brief description of the results of the analysis of the report on self-assessment of the residency educational program in the specialty “Endocrinology for adults, children” for compliance with the Standards of accreditation of postgraduate education programs (residency specialties) of medical educational organizations and conclusions**

The report on the self-assessment of the residency educational program in the specialty “Endocrinology for adults, children” (hereinafter referred to as the report) is presented on 143 pages of main text, 56-page appendices, copies or electronic versions of documents, located at [https://drive.google.com/drive/folders/1VnNmI-pZJkoP16pgiHjoggnslA\\_kePco](https://drive.google.com/drive/folders/1VnNmI-pZJkoP16pgiHjoggnslA_kePco).

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 the educational program provided to the educational organization by the accreditation center - ECAQA, as well as internal consistency of information. Attached to the report is a covering letter signed by Deputy Chairman of the Management Board N.K. Khamzina, which confirms the accuracy of the quantitative information and information included in the self-assessment report.

The report contains a list of members of the internal self-assessment commission indicating the responsibilities of each employee, information about the representative of the organization responsible for conducting the self-assessment of the educational program - “Endocrinology for adults, children”, the head of the program, Aigul Kalibaevna Durmanova, Doctor of Medical Sciences, head of the “General Therapy” program Department of Internal Medicine.

Self-assessment of the educational program “Endocrinology for adults, children” was carried out on the basis of the order of the Corporate Foundation “University Medical Center” No. 08-n/k dated June 01, 2023 “On approval of the composition of the working group for preparation for specialized accreditation of the Corporate foundation “University Medical Center” ”

The report was reviewed by an accreditation expert: Alisher Saugabaevich Idrisov, 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 the university representative and appropriate changes and additions were made to the self-assessment report.

All standards contain the actual practice of the University in training residents in the specialty “Endocrinology for adults, children”, taking into account the start of admission of students in 2021, reasoned data, examples of the implementation of the objectives of the educational program, national and international events, methodological support, confirming compliance with the requirements of accreditation standards. The description in the self-assessment report is quite complete and updated regarding the number of residents, teachers, administration, information on selection and admission, training results, results of evaluation of knowledge and skills, material and technical base of the university and clinical sites, contractual obligations with partners (universities, associations, base), financial information, plans for the development and improvement of the residency educational program.

The report is presented to ECAQA in complete form, with data adjusted according to the above recommendations, written in competent language, the wording for each standard is clear and understandable and described in accordance with the criteria of the standards, tables and figures (graphs - diagrams) contain links in the text and are continuously numbered.

### 3. Description of external expert evaluation

External expert work as part of the evaluation of the educational program in the specialty “Endocrinology for adults, children” was organized in accordance with the Guidelines for conducting external evaluation of educational organizations and educational programs of ECAQA / Dates of visit to the organization: November 27-29, 2022. Sequence of the visit during 3 days is presented in detail in Annex 3 to this report

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

- interviews with management and administrative employees – 16 people;
- interviews with residents – 46 people, study of the website <https://umc.org.kz/>;
- interviewing 8 employees, 4 mentor teachers;
- survey of teachers and residents - 56 and 46, respectively;
- observation of the training of residents: attendance at 1 practical lesson in the discipline (Profiling discipline (PD)) “Outpatient endocrinology (adults)” on the topic “Diseases of the parathyroid glands”, the lesson was taught by Associate Professor Sadybekova G.T. for residents of the 1st year of study, the lesson was held in a training room at the National Research Center for Maternity and Childhood. Attended a lecture by A.K. Durmanova for residents of 2 years on the topic “Emergency conditions in diabetes. Clinic, diagnosis, differential diagnosis, emergency measures, principles of treatment.”
- review of resources in the context of implementing accreditation standards: 3 clinical sites for clinical engagement were visited, including the National Research Center for Maternity and Childhood, the Republican Diagnostic Center, the National Scientific Center for Oncology and Transplantation, where training is conducted in 7 educational programs with the participation of 8 full-time teachers/ part-time workers;
- study of educational and methodological documents in the amount of 28 units both before the visit to the organization and during the visit to the departments (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**

<b>№</b>	<b>Position</b>	<b>Quantity</b>
1	Director of the Department of Education	1
2	Manager of the Department of Education	3



3	Director of the Department of Internal Medicine and staff	6
4	Residents 2-3 years of study	46
5	Faculty of therapeutic and pediatric specialties	16
6	Residency graduates	8
7	Interview with teachers of neonatology and therapy	2

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. A final discussion was held on the results of the external evaluation of the educational program, study of documents, results of interviews, talks, and questionnaires. 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 completed the “Quality Profile and criteria for external evaluation of the educational program “Endocrinology for adults, children” for compliance with the ECAQA Accreditation Standards.” No comments were made by the EEC members. Recommendations for improving the educational program were discussed and Chairman Yermek Meiramovich Turgunov held a final open vote on the recommendations for the ECAQA Accreditation Council.

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 University, the high degree of openness of the team in providing information to members of the EEC. As an expert, I am satisfied with the opportunity to visit and evaluate the first academic medical center of the Republic of Kazakhstan, which rightfully occupies first place among medical healthcare organizations.

When conducting a survey of residents, 90% rated the work of the External Expert Commission on Accreditation as positive, 94%, 3% as satisfactory. The majority of respondents (96%) believe that it is necessary to accredit educational organizations or educational programs.

According to 99% of teachers, the survey conducted by 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 specialized 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 residency educational program in the specialty “Endocrinology for adults, children”**

The following presents evidence of implementation and compliance with standards and substandards, as well as shortcomings identified during external evaluation, a conclusion on compliance with accreditation standards and recommendations for improving the quality of the educational program.

##### **Standard 1: Mission and Outcomes**

The stated mission is professional, the autonomy of the organization is not in doubt. The final results are achievable, the participation of Academic staff in the formulation of the mission is full. They have an excellent understanding of the mission and ways to achieve it. The work is well organized at a high professional level.

Conclusions of the EEC on the criteria. Compliant out of 14 standards (including 9 basic, 5 improvement standards): completely - 14, do not comply - 0.

##### **Standard 2: Educational programme**

The educational program in the specialty “Endocrinology for adults, children” includes the following: extensive use of mentoring, clinical guidance with the transfer of knowledge based on the example of best clinical practice based on evidence-based medicine with a large case of independent development of theoretical material.

The qualification obtained as a result of mastering the educational program in the specialty “Endocrinology for adults, children” corresponds to level 8 of the national qualification framework (ESG1.2) and has code 7R01180.

The educational program includes the scientific foundations and methodology of medical research. Residents carry out individual scientific projects as part of the educational program.

There are documents containing requirements for the structure and content of educational programs, including those in the specialty “Endocrinology for adults, children”, syllabus, WC, schedule. The head of the program bears responsibility for the selection and implementation of innovations in the educational process. The content of work programs and the catalog of elective disciplines reflect the needs of the healthcare system.

The organization of education ensures that the structure, content and duration of the educational program are adjusted in the event of any changes in different sciences, demographics, as well as in response to the needs of the health care system.

The organization of training and the relationship between graduate medical education and health care delivery is a well-coordinated and integrated educational process at an academic medical center.

Conclusions of the EEC on the criteria. Out of 22 standards correspond (including 18 basic, 4 improvement standards): completely - 21, partially -1, do not correspond - 0.

#### Standard 3: Assessment

Validation and assessment of the reliability of resident assessment methods (tests, tasks, and cases) seems difficult to evaluate, since the mechanism for validating test tasks is not digitalized and is carried out as follows: the presented test tasks are on paper and there is no matrix for test tasks and analysis for the existing test tasks on the computer tests performed.

The results of resident assessments are documented or recorded on paper.

The presented documentation system 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, individual educational plans for each resident with an author’s assessment system and research projects of residents, and educational and methodological documentation (work program, work curricula, syllabuses, journals), assessment tools (checklists, statements), evidence, certificates and verifications. A review of the website showed that its pages contain the documents necessary for residents - the educational program, syllabus, assessment sheets (checklists) and there is information about the schedule of classes and rotation plans at the clinical base, which is regularly updated.

Regarding the methods of conducting classes, experts have received convincing information that teachers are trained in teaching methods, but cannot present them.

At the same time, there are difficulties in the development of control and measurement tools, in terms of the system of their validity - the validity of test tasks.

Conclusions of the EEC on the criteria comply with 9 standards (including 5 basic, 4 improvement standards): fully - 8, partially – 1, do not comply – 0.

#### Standard 4: Residents

The educational organization has a policy for the admission of residents, but it does not reflect approaches to the admission of residents with disabilities. At the same time, it should be noted that the organization of education has created a barrier-free learning environment, including the presence of ramps, call buttons, elevators, and toilets for the disabled.

Residents are involved in the development of policies for organizing the educational process by including student representatives in the Educational and Methodological Council. The review of the admission and selection policy and the number of residents is carried out annually, under the control of the Department of Education of the CF “University Medical Center”.

The practice of academic advising, personal support of residents and the development of not only professional skills were assessed by experts through a “360 assessment” and assessment of practical skills. When conducting interviews with residents and graduates, the following information was

obtained: high workload “We work 12 hours a day”; high independence in patient management, free access to modern and innovative treatment methods.

In the training of residents, an individual resident training program is used, which includes the development of an individual plan.

Conclusions of the EEC on the criteria. Out of 20 standards correspond (including 14 basic, 6 improvement standards): fully - 18, partially - 2, do not correspond - 0.

#### Standard 5: Academic staff/Faculty

In total, there are 8 full-time teachers in training the specialty “Endocrinology for adult, children”, the degree level is 25% and 5 people (25%) have the highest category, the first - 0 (%), the second - 0 (%). The ratio of teacher to resident is 1:3.

In order to verify the data of standard 5, on personnel policy, which includes, when selecting personnel at the University Medical Center, a mandatory condition is the presence of an academic degree or the highest qualification category, and work experience.

Faculty members do not have enough time for teaching, mentoring, and training because they are so busy with clinical work.

Conclusions of the EEC on the criteria. Compliant out of 8 standards (including 7 basic, 1 Standard improvement): fully - 7, partially - 1, do not comply - 0.

#### Standard 6: Educational Resources

Academic staff and residents have access to international databases, access to an electronic library, and it has been updated over the last 5 years.

Clinical bases meet the requirements of the training program; modern equipment is available to teachers and residents and meets the needs of students and practical healthcare. But at the National Scientific Center for Oncology and Transplantation, there are inpatients admitted with endocrine concomitant pathology, who undergo preoperative observation and postoperative management. While there is not provided purely inpatient management of patients with endocrine pathology without surgical intervention. There is no possibility of managing patients with emergency endocrine pathology, since patients are admitted only for planned hospitalization with actually compensated endocrine pathology for surgical treatment. The diagnostic center allows for outpatient care of patients with endocrine pathology, but the republican level does not provide skills for dynamic observation and management of such patients (i.e., the old understanding of dispensary management of patients on site in city and district clinics). But in turn (Republican level of medical care), this makes it possible to observe and manage patients (children and adults) with rare endocrine pathologies.

Residents and teachers have wide access to the necessary information technologies: web resources, including IT infrastructure technologies of the CF "UMC", this ensures uninterrupted operation of the Internet, the percentage of access to the Internet is 100%, a local computer system Bitrix 24 has been created, a personal information manager Microsoft Outlook, a video broadcast system in conference rooms, and a subscription to the professional ZOOM platform.

Interprofessional interaction is also carried out through the participation of resident doctors in regular clinical discussions of patients, when specialists of different profiles are involved, meetings of the journal club (JC), educational and clinical commission (ECC), and scientific and practical conferences.

The wishes of residents were identified for the integration of cycles with urban medical institutions, where there is a higher flow of patients. They note that there is not enough space, there is not enough space in the department for all residents, there are not enough computers to do the work, fill out the initial form, etc. There are not enough seminars, surveys, testing the level of theoretical knowledge or conducting practical classes with analysis of topics, while obtaining practical skills is sufficient “We receive practical skills in full”; “Conduct classes for residents, give lectures, conduct practical skills.” Residents' desire to study abroad during their residency training is “I wanted more opportunities to study abroad!” Get opportunities to earn extra money on a part-time basis “Give the opportunity to get a part-time job”, “Pay for duty, as in other hospitals.”

The educational organization carries out research work of resident doctors and good results have been achieved. Resident doctors of 2 years of study have an international publication with a non-zero Impact Factor and a presentation at an international conference.

Conclusions of the EEC on the criteria. Comply with 18 standards (including 11 basic, 7 improvement standards): fully - 18, partially - 0, do not comply - 0

#### Standard 7: Programme Evaluation

Monitoring of the educational program is based on a competency-based approach and includes a system of evaluation forms "Evaluation 360", which ensures transparency of the process and results. An annual analysis of the educational program will allow the educational organization to make adjustments and improve the content.

A survey of teachers showed that the teaching staff accurately and clearly understands the purpose and objectives of the residency program.

Residents expressed 59.5% satisfaction with the residency program. In the process of assessing the quality of residency educational programs, it was found that along with the achievements (91.9% positively assess the number and variety of patients in the departments, 81.1% of resident doctors are considering the possibility of participating in scientific events and research of the CF "UMC" and 81, 6% of respondents believe that resident doctors are given enough responsibility to make decisions when managing patients in accordance with their level of training) there are a number of problems and shortcomings, including 21% who consider the level of support and assistance from doctors to be insufficient.

The results of a survey of teachers showed that 83.6% of teaching staff gave a positive assessment of the provision of resident doctors with various resources for training. The analysis shows that only 57.2% of resident doctors are independent, 42.8% need supervision when communicating with patients and consulting.

The results of the independent assessment of residents in 2023 showed that 74.19% received a "good" rating and 64.41% "excellent". The highest rate is for residents in the specialty "Neonatology", and the lowest rate of academic performance is for residents in the specialty "Radiology".

To improve the educational process, the following has been done in the last 2 years: as an incentive, resident doctors were sent for an internship at the Giannina Gaslini Institute (Via Gerolamo Gaslini, Genoa, Italy) in the specialty "Endocrinology for adults, children".

Educational organizations have approaches to involving teachers and residents in evaluating the educational program and monitoring its implementation. Thus, the resident included in Tobyl A.S. in the specialty "Pediatric surgery" and Mukhamedzhan G.B in the specialty "Obstetrics and gynecology, adult and children" are included in the advisory body "Accounting and Methodological Council" and participate in the discussion of all issues of the educational process. The results of the evaluation of the educational program are announced at a meeting of the Educational and Methodological Council.

The educational program is approved after discussion by the team of the Department of Pediatrics and the Department of Internal Medicine of the Corporate Foundation "University Medical Center" and approved by the Educational and Methodological Council based on criteria such as typical curricula, working curricula and individual curricula.

A system for monitoring the quality and compliance of clinical bases, material and technical equipment and educational resources has been developed and implemented, which includes the following: the presence of international JCI accreditation indicates the compliance of the clinical base, material and technical equipment with international standards.

Conclusions of the EEC on the criteria. Compliant out of 10 standards (including 7 basic, 3 improvement standards): completely -10, partially -0, do not comply - 0.

#### Standard 8: Governance and Administration

Residency training is conducted in accordance with the requirements of the regulatory guidelines for the residency program.

Residents and Academic staff are aware of the program through free access on the CF "UMC" website.

Transparency of management and decision-making in the educational process is ensured by organizing the EMC advisory body of the CF "UMC"

The educational organization of the CF "UMC" evaluates the management of the educational process and employees in relation to achieving the mission of the residency program, the expected final results of training through feedback from residents and teachers, audits on the implementation of the model of an integrated academic medical center, including education, research and clinical practice and generating scientific achievements and innovations.

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. The financial plan is in line with the strategic plan for the period 2019-2023. The most funds are spent on purchasing books, purchasing simulation equipment, and travel expenses for resident doctors sent to conferences and internships.

A financial report is provided annually, which is approved by the board of the CF "University Medical Center" and demonstrates, among other things, the distribution of educational resources in accordance with needs and the covering of all types of expenses (appropriate material and technical equipment, scientific and educational laboratory facilities, development of information networks are provided, wage fund with mandatory contributions) for the implementation and development of the residency program.

Evaluation of the administration and management of the educational process in general and the residency educational program in the specialty "Endocrinology for adults, children" is carried out by auditing the quality of medical services provided, including by resident doctors, and the results demonstrate such achievements as the absence of complaints and complaints from patients and mothers when serving the child population.

The educational organization complies with the recommendations of national authorized bodies, including the Ministry of Science and Higher Education of the Republic of Kazakhstan and the Ministry of Health of the Republic of Kazakhstan. Thus, in accordance with the classifier of residency specialties (On approval of the Classifier of areas of training for personnel with higher and postgraduate education; Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 13, 2018 No. 569), in the organization of education at the beginning of the 2023-2024 academic years, training is provided in 21 specialties and training in 21 specialties is planned. All educational programs are provided with relevant educational and methodological documents and teachers.

Conclusions of the EEC on the criteria. Compliant out of 11 standards (including 8 basic, 3 improvement standards): fully - 11, partially - 0, do not comply - 0.

#### Standard 9: Continuous Renewal

Updates have been made to the resident training process, such as the use of distance technologies in the educational process; it is possible to conduct in a distance format: journal clubs, lectures, project defenses, consultations, meetings on educational and methodological issues, etc.

Updates are made by identifying problems using questionnaires as feedback and are accompanied by analysis of the results obtained. Thus, "Analysis 360" ("360 Evaluation") in the "Open Questions" section of the CF "UMC" is defined as an area for improving the study of the issue of transferring all evaluation forms to electronic media.

Conclusions of the EEC on the criteria. Complies with 2 standards (including 1 basic, 1 Standard improvement): fully -2, partially -0, do not comply - 0.

## **Standard 1: MISSION AND OUTCOMES**

### **1.1 Mission statement**

When implementing program activities, namely, based on the results of an interview with the first head of the organization, members of the advisory body Department of Education of the corporate foundation "University Medical Center", in interviews with residents and teachers, compliance with the criteria of **standard 1** was established. All participants in the educational process know the mission

of the educational programs, took part in the formation of proposals for formulating the mission, while the mission was brought to the attention of potential residents through the website, social networks, and information letters to medical organizations. The organization's strategic plan for 12 years was reviewed, including such areas as transformation into a single integrated autonomous medical center with the integration of highly specialized medical care - outstanding quality in the field of medical science, education and practical training of healthcare professionals; integration of medical care, research and educational activities; integrated into an effective corporate management system, which confirms the accreditation standard is met 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.

While visiting the Department of Internal Medicine, on the basis of which residents are trained in the specialty “Endocrinology for adults, children,” the following strengths in the organization of the educational process should be noted: wide involvement with the provision of high independence in the clinical activities of residents of both 1 and 2 years of study; participation of residents in international scientific conferences; financing a trip abroad of the University Medical Center for 2-year endocrinology residents; the ability to independently master high-tech methods of treating type 1 diabetes mellitus - setting up the software for insulin pump doses in children; independent management of patients with complex endocrine pathologies; possible training and development of clinical skills at clinical sites providing highly specialized medical care; participation in the preparation and management of patients with rare endocrine pathologies or complex endocrine pathologies.

In the CF "University Medical Center" a Department of Education has been created and the Department of Internal Medicine functions within it, which is directly related to the educational program "Endocrinology for adults, children", which can be noted as the best practice in education, namely, high motivation among residents to the ultimate goal of education; the opportunity to use in the educational process to clearly demonstrate and practice practical skills of modern innovative methods of treating endocrine pathology. This conclusion was made because at the moment this is the only republican clinic that has innovative technologies in the treatment of a number of complex endocrine pathologies and it is possible to gain unique independent practical experience in the treatment of adults and children in the educational process during the training of residents in the specialty “Endocrinology for adults, children”.

The results of studying the documentation demonstrate that the mission of the organization and the mission of the educational program “Endocrinology for adults, children” as well as the educational process, is structured in accordance with the SCES and the Laws and Statutory Instruments (LSI) in postgraduate education and healthcare. At the same time, during meetings with residents, it should be noted that they were highly motivated to gain knowledge; experts identified a number of problems, including the high workload of practical (clinical) work of residents.

The educational organization conducts training for residents in the following clinical sites and departments: Diagnostic Center, National Research Center for Maternity and Childhood, National Scientific Center for Oncology and Transplantation (NSCOT), where it provides a patient-oriented approach through innovation to an expanded range of medical services. The educational organization pays due attention to the safety and autonomy of patients by meeting JCI international standards for treatment, quality assurance and safety.

Experts have established that residents have appropriate working conditions to support their own health, since the educational organization provides separate premises (wardrobe, rooms for residents), special clothing, personal protective equipment, discounts on meals (10% discount in the dining room and buffets for residents).

Such basic competencies of residents in an accredited specialty, such as receiving patients and managing patients with endocrine pathology, as well as special competencies, including monitoring and regulating doses of insulin pumps, independent interpretation (“reading”) of MRI and CT images

help educational organizations apply innovative forms of training. This will allow residents to develop skills and qualities that broaden their horizons and create an expanded profile of professional competence.

The educational organization encourages residents to strive to participate in research in their chosen specialty through participation in international conferences with reports, and also ensures the participation of residents in such academic activities as mentoring and independent conduct of individual scientific projects with the presentation of specific final results.

At the same time, experts determined that the organization does not have a separate medical room for residents to provide medical care.

## **1.2 Professionalism and professional autonomy**

Experts have determined that the formation of professionalism in adult and pediatric endocrinology residencies is based on their own training program for medical personnel on the basis of the only scientific, medical and educational center in the Republic for the provision of highly specialized medical care. The organization of education promotes the professional autonomy of residents by providing them with broad rights of independence, self-education, and free access to complex patients including access to rare diseases, direct access to modern and innovative methods of treatment, diagnosis and rehabilitation, including the pediatric population.

Experts have established that the organization of education fully exercises autonomy in relation to the selection of residents for the accredited specialty “Endocrinology for adults, children”, the development of an educational program, and the determination of approaches to the assessment of residents “Endocrinology for adults, children”, as presented in the CF “University” Medical Center” own training program and resident assessment scale with a system for increasing the professional competence of students along a learning path with an incentive system. Responsible employees showed the experts a document defining the requirements for teachers of the residency program “Endocrinology for adults, children” - these are the “Rules for the search, selection, hiring and certification of employees in the corporate foundation “University Medical Center” and its branch” (Annex 42 of the corporate foundation “University” was approved Medical Center” dated November 29, 2021), documents “Committee on Clinical Competencies in the specialty “Endocrinology for adults, children”, document folder order of employees of the Fund for the teaching activity). Employment of residents is regulated on the basis of the state educational order in accordance with paragraph 17-2 of Article 47 of the Law of the Republic of Kazakhstan “On Education”, and referral and assignment to work in state medical organizations of the Republic of Kazakhstan is carried out on the basis of “Minutes of the meeting of the Commission on the distribution of graduates/young specialists and Doctors of Philosophy (PhD). The employment rate of graduates in the specialty “Endocrinology for adults, children” is 100%.

To verify **standard 1** a meeting was held with the Director of the Department of Education A.A. Syzdykova, Deputy Chairman of the EMC; Chief Manager of the Department of Education, Secretary of the EMC Kerimkulova A.D.; Head of the general therapy program of the Treatment and Advisory Department of the Clinical-Academic Department of Internal Medicine, member of the EMC Durmanova A.K. (Head of the specialty “Endocrinology for adults, children”). During the conversation, the experts asked the following questions: 1. What assessment system do you use to evaluate residents? 2. How do you stimulate residents? What incentives do you have at CF for residents? 3. What is the educational process for training residents at your CF?

During the answers, the director of the organization confirmed that the CF “University Medical Center” has its own accepted system for evaluating residents, which includes summative evaluation, formative evaluation and “360 Evaluation”. 2. Incentivizing residents through a competition for a personal scholarship of the CF through a competition, paying travel expenses trips and reports at international conferences abroad, the opportunity to conduct independent scientific projects under the guidance of CF researchers, 10% discount on service in the canteen and cafe on the territory of CF residents, provision of free special clothing (branded surgical suit, badges). 3. The educational process is maximally connected with practical (therapeutic) work in the CF of residents with an assessment of

his work “360 Evaluation”, i.e. assessment of the resident by the mentor, supervising physician, employer questionnaire, assessment of the residents themselves, and assessment by the head of the department. The training program in the specialty “Endocrinology for adults, children” is implemented on the basis of the mission, vision and development strategy of the CF “University Medical Center”.

The academic freedom of residents is manifested in their own author’s training program in the specialty “Endocrinology for adults, children” and is ensured by the organization of education through mechanisms such as the schedule and organization of classes, and the schedule of classes, the schedule of a journal club, syllabus, and educational program in the specialty “Endocrinology for adults and children.” are described in the document.

When conducting a survey of 56 residents, of which 8 were residents in the specialty “Endocrinology for adults, children” (on the resource <https://webanketa.com/>), out of 22 questions, a number were devoted to the quality of the educational process and educational program. It has been established that 100% of residents will recommend studying at this educational organization to their acquaintances, friends, and relatives. And 100% (out of 47) 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?”, 100% (out of 52 respondents, 29 rated 10 points (55.8%) of residents answered positively, no residents are not sure about this, 1.92% answered this question with a score of 2 out of 10 and 7.69% gave it a score of 8 (4 residents out of 52 participating in the survey).

The interviewed 10 teachers from 16 specialties (21 survey questions) also answered that they were 100% satisfied with the organization of work and workplace in this educational organization; 10 employees answered the question of the interest of resident doctors in training with an average of 8.5 points. Experts determined that the organization has a healthy microclimate, since the manager is quite accessible to both residents and employees, responds promptly to requests and provides the requested information in full. In the questionnaire, 47 teachers (100%) were satisfied with the microclimate of the organization. In the opinion of 100% of the educational organization, the teacher has the opportunity to realize himself as a professional in his specialty. For your information, a total of 17 people responded (there are 8 people on staff in the specialty “Adult and Pediatric Endocrinology”), while 12.5% (1 out of 8 people) had teaching experience of up to 5 years, and no % up to 10 years, over 10 years - 87.5% (7 people).

### **1.3 Final learning outcomes**

The final learning outcomes are defined and included in the document educational program in the specialty “Endocrinology for adults, children”, WC, syllabus in the specialty “Endocrinology for adults, children”, “Companion guide for resident doctors of the CF “University Medical Center”, which was developed by the team of the Department Pediatrics and Departments of Internal Medicine of the CF "University Medical Center" on the basis of the Typical curriculum in accordance with the SCES of the Republic of Kazakhstan in the specialty "Endocrinology for adults, children". The program was approved by the Educational and Methodological Council Protocol No. 5 dated April 27, 2023 and approved by the Deputy Chairman EMC of the KF "University Medical Center" Syzdykova A.A. dated April 27, 2023. Informing stakeholders about the final results of training of residents in the specialty “Endocrinology for adults, children” is carried out by reporting the results of the evaluation by the head of the residency, the result of the “360 Evaluation” assessment, formative and summative evaluation, the learning results are recorded in the resident’s individual journal, information on the evaluation criteria is presented in the “Companion guide for resident doctors of the CF “University Medical Center””. The experts were convinced that the professional behavior and communication skills of residents are formed by using the principle of the trinity of science, practice, education and are reflected in the corresponding document - the educational program and syllabus in the specialty “Endocrinology for adults, children”. 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 of the CF “University Medical Center”.



When determining the final learning outcomes, employees of the Department of Education took into account previous learning outcomes in undergraduate and internship programs, and also took into account the goals and objectives of subsequent continuous professional development in the chosen specialty. The educational organization provides training in additional and non-formal education (continuous professional development), including programs in the specialty of an accredited educational program. For example, elective disciplines were developed (“Agreed with” by the Deputy Chairman of the Educational Institution of the CF “University Medical Center” Syzdykova A.A. Protocol No. 15 of September 15, 2023) according to the catalog and programs were introduced on the topics: “Issues of pediatric endocrinology: continuous subcutaneous pump insulin therapy. Diabetes in school”; “Hormone replacement therapy for patients with endocrine system diseases”; “Clinical pharmacology in endocrinology”; “Nutririology in endocrinology”, duration - 2 credits.

The surveyed teachers responded that 8.6 points out of 10 points fully satisfies the level of previous training of residents, and 8.4 points the resident is able to identify strengths, weaknesses and limitations in his knowledge and experience.

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 a seminar “Diabetic Foot Center” for additional education, including for the specialty “Endocrinology for adults, children”. Residents are informed about this.

At 8.6 points out of 10 points, teacher respondents believe that students of this educational organization have a high level of knowledge and practical skills after completing the training program; at 8.4 points they partially agree with this.

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

In developing the goals and objectives of the educational program in the specialty “Endocrinology for adults, children”, employees of the CF “University Medical Center” took part, which is confirmed by the document Protocol of the EMC and “Agreed” by the deputy chairman of the EMC CF “University Medical Center” Syzdykova A.A. dated April 27, 2023; The mission is reflected in the Strategic Plan of the CF "University Medical Center" for 2019-2023. Approved by the decision of the Board of Trustees of the Corporate Foundation "University Medical Center" dated May 25, 2019, Minutes No. 05.25.19. Proposals were made such SCES as approving and accepting the mission statement and the final learning outcomes were determined. When updated regulations and orders in education and healthcare are released, the developers of the educational program take into account the legislation of the Republic of Kazakhstan, SCES, educational regulations and orders and make appropriate changes. For example, Minutes No. 15 dated September 15, 2023, of the meeting of the EMC of the CF “University Medical Center” prompted teachers to add the following to the training program: Amendments to the Instructions for the development of educational and methodological documentation and a system for assessing the educational achievements of resident doctors of the CF “University Medical Center” "

At the same time, when talking with residents and employers, experts did not receive a clear answer to the question “Do you participate in the formulation of the mission and goals of the organization, educational program?”, “What is the personal contribution of residents to improving the educational program?” To these questions, residents answered that they were actively working and independently mastering clinical skills, knew the mission of the organization, but did not participate in its formation. They answered: “Perhaps residents of previous courses participated, but this year the composition of residents included in the EMC has been updated.” And employers responded as follows: they clearly understand the mission and participated in its formulation; they know the final results of training and have many years of methodological and educational experience in training residents.

**Conclusions of the EEC on the criteria.** Out of 14 standards correspond (including 9 basic, 5 improvement standards): completely - 14, do not correspond - 0.

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

1) None.

## **Standard 2: EDUCATIONAL PROGRAMME**

### **2.1 Framework parameters of the postgraduate medical education program**

The model of the educational program in the specialty “Endocrinology for adults, children” is determined on the basis of the final learning outcomes of residents, and therefore includes the following: widespread use of mentoring, clinical guidance with the transfer of knowledge based on the example of best clinical practice based on evidence-based medicine with a large case of independent development of theoretical material. Duration of training is 2 years. Systematicity and transparency of training is guaranteed by the introduction of the “360 Evaluation” assessment system, openness and collegiality in assessing the achievements of professional competence of residents.

To implement the educational program in the specialty “Endocrinology for adults, children”, 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 the SCES and standard requirements has been established, including the author’s syllabus, the maximum universal rotation system during the training of residents at clinical bases with the preparation of individual plans for each.

By attending a practical lesson on the topic “Clinical symptoms and diagnosis of metabolic syndrome”, volume 9 hours, 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 the skill: according to methods diagnosis, principles of treatment and prevention of obesity; on the methodology of teaching healthy lifestyles at school for obese patients. The organization ensures compliance with ethical aspects in the implementation of the educational program, since experts have studied the code of ethics (Code of Business Ethics of the CF “University Medical Center” dated December 26, 2022 No. 17) and during the interview the 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 evaluated, which is described in the document “Evaluation of a Resident Physician by a Clinical Mentor.” There is an order for mentors (Order “On approval of Academic staff and clinical mentors in the residency specialty of the CF “University Medical Center” dated September 22, 2023, No. 29-zh/k.). There are only 8 mentors who are also teachers, i.e. in one person perform the duties of mentors and teachers, whose tasks are in accordance with the assignment of residents (attachment of residents to a mentor on the basis of the Order “On approval of teaching staff and clinical mentors in the residency specialty of the CF “University Medical Center” dated September 22, 2023 No. 29 -zh/k) individual training is carried out for each assigned resident.

The procedure for informing residents about their rights and responsibilities is reflected in the “Companion guide for resident doctors of the University Medical Center.”

The qualification obtained as a result of mastering the educational program in the specialty “Endocrinology for adults, children” corresponds to level 8 of the national qualification framework (ESG1.2) and has code 7R01180.

Teachers use such methods of teaching residents as a clinical case, “in the patient’s bed”. The list of teaching methods is described in the syllabus. Thanks to this method, residents can take part in the provision of medical care to patients. Teachers can provide a resident with supervision of approximately 10 thematic patients per day and 200-400 per month. For example, residents of an educational program in the specialty “Endocrinology for adults, children” upon completion of training, can perform such manipulations as the selection of pump insulin therapy, assessment of hormonal screening, examination of the lower extremities for “Diabetic Foot Syndrome,” and palpation of the thyroid gland.

Experts have found that the principles of academic honesty and anti-plagiarism are fully implemented in educational organizations. This is reflected in the “360 Evaluation” document. Academic integrity applies to phases of resident training such as preparing to present a clinical case or presenting a journal club report. And anti-plagiarism is applicable when residents are working on an electronic library or preparing a scientific report for an international conference. Residents are trained to promptly collect informed consent from patients for any diagnostic and therapeutic procedures. The experts noted that the medical records contain a corresponding document signed by the patient.

Thus, by the end of the 2nd year of study, residents will acquire the basic skills and abilities of the profession of endocrinologist (“Endocrinology for adults, children”), which will allow them to work in institutions such as primary care clinics or at the outpatient clinic level, to provide highly specialized medical care in hospitals (ESG 1.2) code 7R01180.

The experts did not establish any violations with respect to the principle of equality in postgraduate education and continuous professional development, since the educational organization complies with the Constitution of the Republic of Kazakhstan, the Law on the Languages of the Peoples of the Republic of Kazakhstan and other regulatory legal acts in the field of education and healthcare. For example, an educational organization employs 3,115 people, of which 65% are women and 35% are men.

In the educational organization, there is a mechanism for regularly adapting teaching and learning methods to the requirements of modern science and education, as well as to the current needs of practical healthcare. This mechanism includes the use of innovative treatment methods in the educational process and their implementation through the unique autonomous capabilities of the University Medical Center.

This demonstrates compliance with Standard 2 in terms of tailoring training to the needs of residents. At the same time, along with the principles of quality and academic integrity, which are described in the document “Companion guide for resident doctors of the University Medical Center,” the organization does not have an anti-plagiarism system.

## **2.2 Scientific method**

The educational program includes the scientific foundations and methodology of medical research, an elective component “Research work”, amount of 60 hours (2 credits), including clinical research and clinical epidemiology (amount of 60 hours). The information is confirmed in the document syllabus and “Working curriculum for residency for the 2023-2024 academic year, WC agreed upon and approved by the EMC. Protocol No. 15 of September 15, 2023. When talking with residents, experts learned that they use scientific data in training and know the basics of evidence-based medicine. Each resident has an approved individual scientific topic, which he develops during his residency training with the result being an international publication. This provision is enshrined in the section “Academic and scientific activities” in the “Companion guide for resident doctors of the CF “University Medical Center”. In the syllabus, in the weekly work plan, residents are allocated 2 hours for a “Research Project” once a week on Fridays. 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 4 times a month on Thursdays from 16.00 to 17.00. Legal relationships are regulated by the “Agreement between the resident doctor and the head of the research work” (Approved by the Department of Medical Sciences Protocol dated May 30, 2017 No. 9).

When surveying residents, it was established that the educational organization has access to the participation of students in research work and this assessed 7.96 points out of 10 points with a standard deviation of 2.22 points. 48 residents participated in the survey. Residents should engage in research and in response to the questionnaire, 100% wrote that they are already engaged in research; each has an approved scientific supervisor and scientific topic.

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

There are documents containing requirements for the structure and content of educational programs, including those in the specialty “Endocrinology for adults, children”, syllabus, WC,

schedule. Responsibility for the selection and implementation of innovations in the educational process lies with the head of the program in the specialty “Endocrinology for adults, children”, member of the EMC A.K. Durmanova.

The content of work programs and the catalog of elective disciplines reflect the needs of the healthcare system, including “Issues of pediatric endocrinology: continuous subcutaneous pump insulin therapy. School of diabetes”, as well as the specifics of research and scientific achievements of teachers. These include the following: “Hormone replacement therapy for patients with diseases of the endocrine system”; “Clinical pharmacology in endocrinology”; "Nutririology in endocrinology." For the successful implementation of the educational program in the specialty “Endocrinology for adults, children”, the organization has resources for organizing the assessment of practical skills of residents; there is a case “Assessment of clinical competencies” (Annex No. 9 to the instructions for the development of educational and methodological documentation and a system for assessing the educational achievements of doctors - residents of the corporate foundation "University Medical Center"). However, there are difficulties in planning, developing and approving educational programs, including when transferring to the Platons electronic gradebook. Experts found that the educational program takes into account legal requirements, including those regarding residents’ access to confidential information and the list of privileges of a resident doctor (permission to perform manipulations, procedures, operations).

The theoretical component of the educational program is 80 hours, including two-hour lectures on all topics of the educational program. The practical component of the educational program consists of 1960 hours, which is 96%; it accounts for the main emphasis in resident training. Possible future roles of a residency graduate, namely, a medical expert, a manager, are formed through such disciplines as “Outpatient endocrinology (children)”, “Outpatient endocrinology (adults)”. The legal aspects of a doctor’s activities are discussed in the classes of the discipline “Hormone replacement therapy for patients with diseases of the endocrine system” and “Clinical pharmacology in endocrinology”. The scientific component in resident training is formed through the optional component “Research Work” (60 hours), an approved individual scientific topic of the resident and participation in the “Journal Club” with the result being an international publication.

The organization of education ensures that the structure, content and duration of the educational program are adjusted in the event of any changes in different sciences, demographics, as well as in response to the needs of the health care system. For this purpose, there is a mechanism represented by the Educational and Methodological Council and the “Rules for organizing the educational process in the residency of the corporate foundation “University Medical Center” (Appendix 3 to the minutes of the Board of the corporate foundation “University Medical Center” dated March 29, 2021 No. 6).

Teachers provide residents with methodological and didactic materials, additional literature to prepare for classes, with which 37.50% are completely satisfied, 14.58% are partially satisfied, and 12.5% are not satisfied.

The organization has its own clinical base with 700 beds and 800 outpatient visits, and has also entered into agreements with medical organizations LLP “National Scientific Oncology Center”, MSI on the REM “City Multidisciplinary Hospital No. 2”, MSI on the REM “City Phthisiopulmonology Center” of the Akimat of the city Astana. And to the survey question “Are you given enough responsibility to make decisions and manage patients in accordance with your level of training?” residents rated 8.0 points on a 10-point scale. To the survey question “Assess the provision of the program with the number and necessary profiles of patients in the clinic’s departments,” residents rated 8.08 points on a 10-point scale. To the question “Assess the possibility of mastering the necessary practical skills in the departments of the clinic,” residents gave 8.10 points. At the same time, residents rated 7.23 points on a 10-point rating scale that after completing classes the teacher provides feedback (listens to your opinion, conducts a mini-questionnaire, works on mistakes).

At the same time, to the question “Are resident representatives involved in the development of educational programs?”, the experts received the following answer from residents: “Perhaps residents who have currently completed their training participated. In response to this question, graduates of the

residency program at the University Medical Center and residents of the 3rd year of study noted that their representatives are part of the UMS and informed them about the discussion of educational programs.

The surveyed residents were completely satisfied with the schedule of training sessions, scoring 7.60 points out of 10 points.

#### **2.4 Organization of training and the relationship between postgraduate medical education and the provision of medical care**

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 and conversations with the head and staff. At the same time, verification of standard 2 showed that at the University Medical Center, the educational process in the academic medical center is well coordinated and integrated.

The experts got acquainted with the work of the departments, including the Department of Internal Medicine and the Department of Education, a total of 5 meetings were held and during cross-interviews it was established that there is a great emphasis in the educational process on clinical or, more correctly, involvement in the practical management of real patients in the clinic. The teaching staff of the Department of Internal Medicine conducts training cycles for doctors, that is, postgraduate medical education is carried out by the same employees who train residents. At one clinical base, residents are trained and advanced training courses are conducted for practical healthcare doctors. This achieves the integration of educational residency programs in the specialty “Endocrinology for adults, children” and the relationship between postgraduate medical education and the provision of medical care based on real clinical practice.

Thus, responsibility for choosing the basis for clinical training and practice of a resident in the specialty “Endocrinology for adults, children” is assigned to the Department of Education, namely, drawing up a schedule based on agreement with the Department of Internal Medicine. Experts analyzed information on the availability of accreditation of clinical bases and concluded that the presentation of clinical bases provide highly specialized medical care and meet the requirements for the declared specialty.

The training of residents in the specialty “Endocrinology for adults, children” is aimed at meeting the needs of practical healthcare, since when analyzing the shortage of specialists for 2023, the shortage of doctors in the Republic of Kazakhstan was found to be 4.5 thousand. Therefore, this organization is specialized in the provision of highly specialized medical care, and provides a lot of opportunities and conditions for qualified training of specialists in adult and pediatric endocrinology. Thus, during a conversation with the management of the organization, experts received information about admission to patients of residents on the basis of the “Privilege List of Resident Physicians” (Annex 6 to the Manual for Working with Personnel of the Corporate Foundation “University Medical Center”) and “INFORMED CONSENT on non-disclosure of confidential information about patients” (Form INF-64. Version 1 Approved by the order of the Director of the National Research Center of Medical Sciences of the CF "UMC" No. 3 dated January 22, 2018), and the teachers confirmed that the training of residents is carried out directly in the clinical department of somatics (the children's department, where the endocrine and hereditary program is carried out diseases in children National Research Center for Maternity and Childhood) and outpatient care of the adult population (Republican Diagnostic Center). Residents of this specialty can supervise patients with diseases such as diabetes in adults and children, obesity and its complications, congenital dysfunction of the adrenal cortex, pituitary dysfunction, hypogonadism, growth and puberty disorders (early / late puberty), disorders of sex development, diseases of the thyroid and parathyroid glands, Osteogenesis imperfecta, congenital hyperinsulinism, Prader-Willi syndrome, Noonan syndrome, Shereshevsky-Turner syndrome, Klinefelter syndrome.

This is facilitated by mentoring, which is carried out at the University Medical Center by the Academic staff of the Department of Internal Medicine.

When attending a practical lesson on the topic “Diseases of the parathyroid glands in children”, lasting 5 hours and talking with residents, the experts saw that the organization promotes the development of practical competencies of residents, including using simulation equipment. At the same time, residents deepen their theoretical knowledge and develop communication skills.

Integration between education and medical care (on-the-job training) is carried out by independently receiving outpatients and, together with a mentor, under the supervision of a hospital doctor, children are treated in the somatic department with a high degree of independence. Training is conducted in accordance with clinical protocols.

Of the 48 residents surveyed, 37.5% responded that teachers in the classroom use active and interactive teaching methods quite often and rated it 10 points. And 12.50% think that they rarely or sometimes rate it at 1 point on a 10-point scale.

The following employees Durmanova A.K., Rakhimzhanova M.K., Sadybekova G.T. took part in the planning, discussion, approval and review of the educational program in the specialty “Endocrinology for adults, children”.

**Conclusions of the EEC on the criteria.** Compliance out of 22 standards (including 18 basic, 4 improvement standards): fully - 21, partially -1, do not comply - 0.

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

1) To expand the medical expert and manager section in the educational program for residents in the specialty “Endocrinology for adults, children”, since training is carried out on the basis of a medical organization that provides highly specialized medical care CF “University Medical Centre” is a flagship with high autonomy, academic excellence and educational potential.

### **Standard 3: ASSESSMENT**

#### **3.1 Assessment methods**

The study of control and measurement tools (30 tests, 2 clinical tasks, assessment of practical skills) showed that the organization has implemented an appropriate assessment policy that allows for a comprehensive evaluation of the educational achievements of residents. During the interviews, residents spoke about the assessment forms, for example, formative and summative evaluation forms, that they were satisfied with everything. They also receive regular feedback from teachers. The system for appealing assessment results is reflected in the document “Companion guide for resident doctors of the CF “University Medical Centre” Astana, 2023 and during the period of operation of the educational organization there were no appeals. The evaluation covers not only knowledge and skills, but also professional behaviour and communication skills, as evidenced by the following: each resident physician is assessed for progress in achieving the learning outcomes (knowledge, skills and attitudes) according to Annex 1 to the syllabus.

The criteria for admission to the end-of-course assessment are according to clause 4.17. A resident doctor who has completed a full course of residency training at the CF “UMC” in accordance with the requirements of the Work Curriculum (WC), individual curricula of the IEP and portfolio are admitted to the end-of-course assessment. This is documented in the “Companion guide for resident doctors of the CF “University Medical Centre”, Astana, 2023, section 4 “Procedure for the final certification of a resident doctor.”

Admission for independent examination of residents is in accordance with the provisions of paragraph 2.6.7. A resident doctor who has completed the training program is admitted to the IA, the purpose of which is to assess the learning outcomes and competencies achieved upon completion of the residency program in accordance with the “Companion guide for resident doctors of the CF “University” Medical Centre”, Astana, 2023, section 2 "Rules for residency training at the CF "University Medical Centre". In the practice of educational organizations, residents in the specialty “Endocrinology for adults, children” (including other specialties) take an independent examination in 2021 with an average score of 94.52; 2022 GPA 88.75; 2023 average score 85.23.

Validation and assessment of the reliability of resident assessment methods (tests, tasks, cases) seems difficult to evaluate, since the mechanism for validating test tasks is not digitalized and is carried out as follows: the presented test tasks are on paper and there is no matrix for test tasks and analysis for the existing test tasks on the computer tests performed.

In the organization of education in the specialty “Endocrinology for adults, children” there is no practice of involving external examiners in assessing residents.

Thus, to verify the data of standard 3, the experts asked questions to the head of the department of postgraduate education, the head of the “General Therapy” program, a member of the EMC A.K. Durmanova. (Head of the specialty “Endocrinology for adults, children”) and checked the documents and methods for assessing residents.

The following questions were asked: 1. “How is the training program in the specialty “Endocrinology for adults, children” structured?”

2. “Where residents receive practical skills in managing inpatient adult patients?”

3. “What achievements do your residents have?”

4. “How is your class going and how do you evaluate the residents?”

The following responses were received: 1. “Each resident has an individual training log. Each resident is assigned to a teacher-mentor with personal responsibility for training assigned residents. The training program involves rotating residents across clinical sites and mastering innovative practical skills with independent patient management under the guidance of curators (doctors).”

2. “The hospital for adults to obtain practical knowledge and skills for residents is the “National Scientific Oncology Centre” LLP.” But mainly resident doctors and an endocrinologist monitor and prepare patients for surgical treatment and after surgical management of patients with concomitant endocrine pathology.”

3. “A second-year resident participated in an international conference with a report. The trip and participation in the conference were fully paid for by the University Medical Centre.”

4. “Lectures are held with residents once a week. Journal club are held once a week. During the day of appointment, the topics of the classes are discussed for specific patients. There is constant joint participation of the resident in practical medical work. There is reception of patients in the outpatient department of the Diagnostic Centre. When assessing residents, formative, summative forms of evaluation and assessment of practical skills are used. The assessment criteria are presented in the syllabus and residents are familiar with it. In addition, a “360 Evaluation” assessment is carried out.”

The organization has 30 tests and presents 2 clinical tasks, which were compiled by Durmanova A.K., Rakhimzhanova M.K., Sadybekova G.T. and approved at a meeting of the Board of Medical Directors of the CF “University Medical Centre” (minutes No. 15 of September 15, 2023). Testing and measurement tools are not peer-reviewed. The head of the program in the specialty “Endocrinology for adults, children” Aigul Kalibaevna Durmanova, responded that additions and updates to the control and measuring equipment are planned to be made in the current academic year 2023-2024.

The results of resident assessments are documented as follows by recording them on paper and collected by residents in the form of an individual folder with assessments.

At the same time, based on the results of the final exam in the specialty “Endocrinology for adults, children” 2 residents took the exam and both received “excellent”; there were no “good” or “satisfactory” grades.

There is an order to appeal the evaluation results “On the creation of an appeal commission of the corporate foundation “University Medical Centre” based on the final certification of residency graduates dated June 29, 2023, No. 03-k.” The procedure for the work of the appeal commission is approved in the Rules for organizing the educational process in the residency of the CF “UMC” dated March 29, 2021 No. 6.

The procedure for the work of the appeal commission during the entrance examinations to residency is described in section 4 of the Rules for admission to residency of the CF “UMC”, approved by decision of the Board of the CF “UMC” on March 1, 2018 No. 5.

To date, there have been no resident appeals.

During a visit to the organization and during an interview with Durmanova Aigul Kalybaevna, head of the program in the specialty “Endocrinology for adults, children” 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 operational plans, annual reports, regulations of departments, agreements with teachers and residents, individual curricula for each resident with an author’s assessment system and research projects of residents, and educational and methodological documentation (work program, working curricula, syllabuses, journals), assessment tools (checklists, statements), evidences, certificates and verifications. A review of the website showed that its pages contain the documents necessary for residents - the educational program, syllabus, assessment sheets (checklists) and there is information about the schedule of classes and rotation plans at the clinical base, which is regularly updated.

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?” And the answer was received: “It is planned to involve external experts.” In 2021, T.B. Dautov, Director of the Department of Radiology and Nuclear Medicine, was appointed Chairman of the IAC. In 2022-2023, Chairman of the IAC D.B. Jenaliev, Director of the Clinical Academic Department of Pediatric Surgery.

When resident doctors undergo disciplines at external clinical bases, students are examined by contracted external teachers. The evaluation results are recorded in the examination sheet, signed by the examiner.

### **3.2 Relationship between assessment and learning**

When conducting interviews with 12 teachers regarding assessment methods, the experts received convincing information that teachers were trained in teaching methods, but could not present them. For example, the question was asked: “What teaching methods do you use in your classes? For example, do you use the RBL technique in class?” It was not possible to get a clear answer. Although the teaching methodology RBL - Research Based Learning (Training based on the development of research competencies) is known or other well-known teaching methodologists. Since in the CF “University Medical Centre” there is one of the rates is set for scientific research of residents. Residents also shared their opinions on the timeliness of providing tests, counselling before exams, the clarity of the entire assessment procedure and its fairness. For example, residents said that the CF “University Medical Centre” has the most open system for assessing their knowledge in comparison with other universities where they previously studied.

The experts examined the resources for organizing the assessment of knowledge and practical skills, namely, a simulation centre, a simulation room, departments where residents practice, a library and a methodological room for training residents.

Experts determined that the choice of methods for assessing residents is based on formative and summative forms of evaluation; the main form of training is the practical part of training. For example, ongoing assessment methods such as 360 assessments promote inter-professional learning. A method such as summative assessment demonstrates the integration of learning and an emphasis on clinical skills. In accordance with paragraph 99 of the “Rules for organizing the educational process in the residency of the CF “UMC” dated February 15, 2018 No. 3” (Annex 3 to the minutes of the Board of the Corporate Foundation “University Medical Centre” dated 03.29.2021 No. 6) based on the results of each academic period (semester), the resident doctor passes an intermediate certification in the form of test questions developed on the basis of generally mandatory residency education standards. The results of the certification are recorded and stored by the structural unit responsible for conducting the residency. Established assessment methods ensure that the resident has mastered all sections of the educational program and acquired the necessary practical skills.

Feedback from residents based on the results of their assessment is collected in the form of a “360 Evaluation” with sections “Evaluation of the residency program by a resident physician,” “Evaluation of a clinical mentor by a resident physician,” “Evaluation of a Residency Program by a Graduate” and stakeholders are openly informed about the results in a free manner access to



assessment results on the website. In interviews, residents confirmed that they receive feedback after completing their training.

The 4 graduates interviewed also indicated that the training of graduates corresponds to the modern development of medical practice and science, since currently working they do not experience difficulties due to a lack of skills and knowledge. Employers (represented by employees of the CF "University Medical Centre" clinical departments, where residency graduates work) said that they themselves participate in the evaluation of residents, since they are included in the evaluation of residents using the "360 Evaluation" form. But the educational organization did not provide systematic feedback to them.

At the same time, there are difficulties in developing control and measurement tools, including the system of their validity - the validity of test items.

**Conclusions of the EEC on the criteria** comply with 9 standards (including 5 basic, 4 improvement standards): fully - 8, partially -1, do not comply - 0.

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

- 1) Assignments are presented on paper. It is necessary to digitalize control and measurement systems. For the further possibility of conducting and assessing their validity.
- 2) Grades must be digitalized into the Platonus electronic gradebook.

## **Standard 4: RESIDENTS**

### **4.1 Admissions policy and selection**

The educational organization has a policy for the admission of residents, which is called "Rules for admission to the residency of the corporate foundation "University Medical Centre" (Annex 4 Approved by the decision of the Board of the corporate foundation "University Medical Centre" dated 01.03.218 No. 15). Approaches to the admission of residents are based on the requirements of the country and internal regulations, namely, "Model rules for admission of the Ministry of Education and Science 01/26/2023", "Rules for placing government orders and admission to residency 07/29/2021", "On amendments to some orders of the Ministry of Health of the Republic of Kazakhstan 03/15/2023 No. 38. Transparency of the selection procedure and equal access to residency programs is achieved through open information on the website about admission to the residency of the CF "University Medical Centre", according to the "Rules for admission to the residency of the corporate foundation "University Medical Centre" (Annex 4 Approved by the decision of the Board of the Corporate Foundation "University Medical Centre" dated 03/01/2018 No. 15) is confirmed by paragraph 7, as well as the order "On approval of the composition of the selection committee for the residency of the corporate foundation "University Medical Centre" for the 20-23-2024 academic years dated June 26, 2023, No. 01-k" and "On conducting entrance exams for the residency of the corporate foundation "University Medical Centre" for the 20-23-2024 academic year dated August 3, 2023, No. 17-zh/k."

The document does not reflect approaches to admitting residents with disabilities.

The assessment sheet for admission to the residency of the corporate foundation "University Medical Centre" takes into account the requirements of residency applicants in terms of their previous achievements in undergraduate and internship (for example, item 4 "RESEARCH: Have you participated in any research? Does the applicant have research skills and skills? Does he know research methods? Does the applicant show interest in continuing research?") and in the document "Criteria for admission to the residency program of the CF "UMC", paragraph 4 "Scientific achievements corresponding to the profile of the educational program", and also describes the requirements for compliance with safety ( for example, item 7. MATURITY: Does the candidate demonstrate maturity during the interview?).

The educational organization has created a barrier-free learning environment, including the presence of ramps, call buttons, elevators, and toilets for the disabled.

Approaches to the admission and transfer of residents from other educational organizations are reflected in section 5, paragraphs 63, 64 of the document "Rules for organizing the educational process

in the residency of the corporate foundation “University Medical Centre” (Annex 3 Approved by the decision of the Board of the corporate foundation “University Medical Centre” dated March 29, 2021 No. 6.). In this case, the outstanding points in the “Rules for admission to the residency program of the corporate foundation “University Medical Centre”” (Annex 4 Approved by the decision of the Board of the corporate foundation “University Medical Centre” dated March 1, 2018 No. 15) are taken into account, section 5 “Enrolment to the residency program”, paragraph 48.

The appeal procedure based on the results of admission to residency is prescribed in the “Rules for Admission to Residency of the Corporate Foundation “University Medical Centre” (Annex 4 Approved by the decision of the Board of the Corporate Foundation “University Medical Center” dated 03/01/2018 No. 15) section 4 “Procedure of work of the appeal commission”. To date, there is only one precedent for an appeal for the Ophthalmology residency.

In the process of developing a policy for the educational process and selecting residents (internship, business trip, etc.), it was decided by including representatives of students in the Educational and Methodological Council, namely Tobyl A.S., resident doctor for 3 years in the specialty “Paediatric Surgery” and Mukhamedzhan G.B., resident doctor for 3 years in the specialty “Obstetrics and gynaecology for adults, children.” Feedback is provided to residents on this issue, and recently the following changes have occurred in approaches to admitting residents: the criteria have remained the same, but the average score for applicants has increased.

The review of the admission and selection policy and the number of residents is carried out annually, and the Department of Education of the CF “University Medical Centre” is responsible for this.

Thus, experts validated the data according to **standard 4**. In general, all criteria are met, at the same time, some shortcomings were identified: lack of involvement of residents in the residency admission policy. The experts familiarized themselves with the documentation for the admission of residents, including the document “Rules for admission to the residency program of the corporate foundation “University Medical Centre” (Annex 4 Approved by the decision of the Board of the corporate foundation “University Medical Centre” dated 03/01/2018 No. 15). Many documents are well drawn up, but there are comments regarding the need to update the document in the future in 2024. “Rules for admission to the residency of the corporate foundation “University Medical Centre” (Annex 4 Approved by the decision of the Board of the corporate foundation “University Medical Centre” dated 03/01/2018 No. 15).

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

For the period 2019-2023 193 residents were admitted to all educational programs, including the program in the specialty “Endocrinology for adults, children” (18 residents). The total graduation of residents on the start date of admission to residency in all specialties was 161 people, including those in the accredited educational program “Endocrinology for adults, children”. The educational organization analysed the need in practical healthcare for endocrinologists and determined that the annual admission to the educational program in the specialty “Endocrinology for adults, children” will be 4 people. This indicator corresponds to the resource capabilities of the CF “University Medical Centre”. For 2023 in the Republic of Kazakhstan, the need for doctors was 3,450 according to “News of KazNMU” (<https://news.kaznmu.edu.kz>) in the specialty “Endocrinology for adults, children” the need for a specialist in practical healthcare is 2 times more from available personnel in the field. Accepted residents for training in the specialty “Endocrinology for adults, children” in 2021 was 1; in 2022 was 2; in 2023 was 4 residents. Every year there is an increase in allocated grants for training in the specialty “Endocrinology for adults, children” of the CF “University Medical Centre”.

#### **4.3 Support and counselling for residents**

The practice of academic advising, personal support of residents and the development of not only professional skills were assessed by experts through a “360 Evaluation” and assessment of practical skills. When conducting interviews with residents and graduates, the following information was obtained: high workload “We work 12 hours a day”; high independence in patient management, free access to modern and innovative treatment methods.

The educational organization has a resident development program, which includes an individual plan, research work, the result of which is an article with a non-zero impact factor. Residents are included in such advisory bodies as the “Educational and Methodological Council” Tobyl A.S., resident doctor for 3 years in the specialty “Paediatric Surgery” and Mukhamedzhan G.B., resident doctor for 3 years in the specialty “Obstetrics and gynaecology for adults, children.”

For example, for the purpose of social support for residents, a 10% discount was organized in cafes and canteens on the territory of the CF “University Medical Centre”, and surgical suits were provided free of charge. Financial support for residents is provided through the issuance of a scholarship in the amount of 100,036 tenge and additional financial support for residents, enshrined in the order “On the appointment of state scholarship payments to resident doctors of the CF “University Medical Centre” dated September 22, 2023 No. 01-m.” Psychological support for residents is provided through free access to the medical offices of the University Medical Centre, which is conducted confidentially. For psychological support and psychosocial counselling, CF “UMC” has a psychosocial support sector with 6 staff members - psychologists who provide psychological assistance if necessary.

To plan the career of residency graduates, the question “5. CAREER GROWTH: Where do you see yourself practicing? What are your long-term career goals? Where do you see yourself in five years? After ten years?”. The employment rate of graduates of all residency programs in 2022 was 100%.

#### **4.4 Representation of residents**

The following consultative and advisory bodies function in the educational organization: Educational and Methodological Council, in whose work residents take part - Tobyl A.S., a resident doctor for 3 years in the specialty “Paediatric Surgery” and Mukhamedzhan G.B., a resident doctor for 3 years in the specialty “Obstetrics and gynaecology for adults, children” (Order “On approval of the composition of the Educational and Methodological Council of the CF “University Medical Centre” dated September 29, 2023, No. 20-n/k). Mechanisms to reward residents for community service include certificates. When interviewing residents, experts found that they were aware of the functioning of the Educational and Methodological Council and those residents were members of it. Resident members of the EMC inform them through social (Whatsapp group) messengers on current issues and decisions made by the EMC.

#### **4.5 Working conditions**

Residents receive a monthly stipend in accordance with the order “On the appointment of state stipend payments to resident doctors of the CF “University Medical Centre” dated September 22, 2023 No. 01-m.” Residents are given the opportunity to work during extracurricular hours, which is reflected in the document, for example in the document “Job description of a resident doctor in the specialty “Endocrinology for adults, children” Approved by the decision of the Educational and Methodological Council dated September 15, 2023 No. 15. Such residents are assigned to different specialties (19) at the moment - 33.3% (20 residents). In total, the educational organization has 3 clinical sites for training residents and at each site various events are held in which residents participate. For example, at the Republican Diagnostic Centre, residents learn how to treat endocrinological patients on an outpatient basis. As a rule, residents supervise 5 patients per day, and 120 people per month. Residents make thematic reports such as “Glycaemic control”, “TIR modern sub code in the management of diabetes”, “Diagnostic criteria in reproductive endocrinology”, “Diabetic foot syndrome and innovative treatment methods”. They participate in health education work, including with parents whose children suffer from endocrine pathology and by conducting classes at the “School of Diabetes”. The educational organization has introduced elements of distance learning for residents, for example, topics for independent work by residents.

In special circumstances (for example, due to a valid reason for illness), an individual resident training program is used, which includes creating an individual schedule with a teacher. This is enshrined in the document “Companion guide for resident doctors of the CF “University Medical Centre”, Astana, 2023. Experts have established that in this case the duration of training is observed and is 2 years.

**Conclusions of the EEC on the criteria.** Out of 20 standards correspond (including 14 basic, 6 improvement standards): fully - 18, partially - 2, do not correspond - 0.

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

1) To involve residents in the policy of admission and selection of residents. For example, organize a public association of graduates of the residency program of the CF “University Medical Centre”, which can reflect an opinion on the organization’s policies.

2) To include in the documents questions regulating or reflecting approaches to the admission of residents with disabilities.

**Standard 5: Academic Staff/Faculty**

**5.1 Recruitment and selection policy**

There are 8 employees in total, of which 8 are full-time teachers, and there are no part-time teachers. The requirements for teachers of the residency program take into account that he would be an employee of the CF “University Medical Centre”.

Sedateness is 25%, 5 people (25%) have the highest category, 0 people have the first category, and 0 people have the second category. The training of residents in the specialty “Endocrinology for adults, children” is carried out by the following employees: Yesembaeva G.K., Rakhimzhanova M.K., Durmanova A.K., Sadybekova G.T., Salykbaeva Zh.K., Tabyldieva A.N., Tazhigulova Zh.M., Bolatbek K.B. on the basis of the clinical diagnostic department of the Republican Diagnostic Centre, the National Research Centre for Maternity and Childhood, the National Scientific Centre for Oncology and Transplantation.

The experts familiarized themselves with the job descriptions of the employees of the CF “University Medical Centre” and the regulations, contracts and memorandums of the CF “University Medical Centre”.

The experts are familiar with the personnel policy (“Rules for the search, selection, hiring and certification of employees in the corporate foundation “University Medical Centre” and its branch.” Annex 42 was approved to the decision of the Board of the CF “University Medical Centre” dated November 29, 2021 No. 24), Regulations on mentors (“On approval of Academic staff and clinical mentors in the residency specialty of the Corporate Foundation “University Medical Centre” Order dated September 22, 2023 No. 29-zh/k) and on “Regulations on the Clinical Academic Department of Internal Medicine of the CF “University Medical Centre” (Annex 34 to the decision of the Board of the CF “University Medical Centre” dated November 29, 2021 No. 24 was approved). The ratio of teachers and residents is 1:3.

The motivation system for teachers and clinical mentors includes the following incentives: payment for mentoring and teaching activities. For 3 years of training residents in the specialty “Endocrinology for adults, children” the department’s employees were not awarded, perhaps this is due to the short period of existence of the residency.

The principles of ethics and academic integrity of teachers are reflected in the document “Code of Business Ethics of the Corporate Foundation “University Medical Centre” (Annex 3 to the decision of the Board of the CF “University Medical Centre” dated December 26, 2022 No. 17). During a conversation with teachers, they confirmed their awareness of this issue of ethics and deontology in their daily work.

In order to verify the data of standard 5, external experts received the opinion of teachers on the personnel policy, which includes, when selecting personnel at the CF “University Medical Centre”, a mandatory condition is the presence of an academic degree or the highest qualification category, and work experience. During the conversation with the head of the General Therapy program A.K. Durmanova, she included questions such as “What are the requirements for employees conducting classes for residents?” and allowed experts to learn about approaches to attracting employees of clinical sites for teaching (there are 8 such teachers in total and these are full-time employees), about the strategy and tactics of recruiting residents, the information security of the educational program, and

also to identify problems in the management and development of human resources, since Most teachers have been trained in various teaching methods but do not use them.

When surveying teachers, it was found that the majority (89%) are completely satisfied with the organization of work and workplace in this educational organization, but 2% are partially satisfied. In this educational organization, teachers have the opportunity to engage in scientific work and publish the results of research work - 99% completely agree, 0% partially agree. Satisfied with the work of the HR (personnel) service - 80% completely agree, 2% partially agree. Satisfied with the salary - 95% completely agree, 3% partially agree.

## **5.2 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 teachers, experts received an opinion on approaches to developing the pedagogical competence of teachers, motivation to work with residents, and mentoring, which includes non-material incentives - certificates, awards, titles (“Best teacher of the year”, “Best curator of the year”, “For the best scientific publication of the year”, Letters of gratitude “For contribution to the development of educational and scientific activities of CF “UMC””) and material incentives (standard bonuses).

Experts have determined that faculty and residents do not have enough time for teaching, mentoring, and learning. The work schedule of teachers is established in accordance with 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. Opening hours: from 8.00 to 17.00. Teachers conduct weekly seminars, 1 seminar per week lasting 1 hour from 16.00 to 17.00. Time for clinical reviews, clinical rounds was from 8.00 to 16.00 hours (8 hours). On duty was happened once a week according to the approved “Duty Schedule”. This work is well described in the syllabus for 1st and 2nd years of study.

The experts received answers about the advanced training program for 40 teachers, which is conducted annually, and 8 teachers participating in the implementation of the educational program were trained in 2023, including teachers of the accredited educational program in the specialty “Endocrinology for adults, children” - 8 people. These events are financed by the educational organization. The expert verified teacher certificates on topics such as “Methodology for creating digital classes in postgraduate medical and pharmaceutical education” (05/31/2021 - 06/11/2021) and participation in the seminar “Methodology and educational technologies in residency” from October 9 to October 20, 2023.

The salary fund of teachers is formed on the basis of the internal document “Changes and additions to the Procedure for the distribution and methodology for calculating remuneration of employees of the corporate fund “University Medical Centre” involved in educational, scientific and innovative activities” (An appendix to the decision of the Board of the corporate fund “University Medical Centre” was approved " dated April 28, 2022 No. 6).

Funding for mentors is carried out in accordance with the order “On approval of Academic staff and clinical mentors in the residency specialty of the Corporate Foundation “University Medical Centre” dated September 22, 2023 No. 29-zh/k.”

Experts have found that teachers initiate research topics for residents stimulate the need for additional training and independent work with literature and medical documentation. So, residents in the specialty “Endocrinology for adults, children” have an approved individual curriculum plan that is integrated into a current scientific problem or has practical application, for example, a resident has been actively involved in the creation and operation of the “Diabetic Foot” office in the city of Astana for 2 years on the basis of a private surgical centre. This work is regulated by the following documents “Agreement between the resident physician and the supervisor of the research work” (Approved by the Educational and Methodological Council Protocol of May 30, 2017 No. 9), “Agreement between the resident trainee and the dissertation supervisor” (Approved by the Educational and Methodological Council Protocol dated 05/30/2017 No. 9), “Requirements for the content, design and defence of research work in the residency program” (Revised by the Educational and Methodological Council

Protocol dated 04/28/2018 No. 2), "Regulations on the Journal Club" (Approved by the Educational Council -methodological council Minutes dated April 28, 2018 No. 2).

In an educational organization, there is an opportunity for career growth and development of teacher competencies - 99% of surveyed teachers responded, and 0% partially agreed with this. Studied in professional development programs - 90% less than 1 year ago, 100% within a given year, 80% more than 3 years ago, 12.5% more than 5 years ago and 0% answered "I don't remember when that was".

The organization implements social support programs for teachers - 0% answered that "yes, such programs exist," 0% "I have already taken advantage of it," 100% of respondents answered that there are no such programs, and 100% of respondents do not know about it.

**Conclusions of the EEC on the criteria.** Compliant out of 8 standards (including 7 basic, 1 Standard improvement): fully - 7, partially - 1, do not comply - 0.

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

- 1) To reduce the clinical load of teachers conducting classes for residents.
- 2) Actively carry out advanced training for employees involved in training residents in teaching methods (conduct pedagogical continuing professional development).
- 3) It is mandatory to attract teachers for medical residents with at least 5 years of experience and with medical qualifications of at least the first qualification category.

## **Standard 6: EDUCATIONAL RESOURCES**

### **6.1 Logistics and equipment**

Residents are trained at the Diagnostic Centre, including residents of an accredited educational program in the specialty "Endocrinology for adults, children" at the National Research Centre for Maternity and Childhood, National Scientific Centre for Oncology and Transplantation (NSCOT). There are 500 beds in total and 800 outpatient visits per shift. There are 3 classrooms, 5 conference rooms for seminars and journal clubs, 1 laboratory (the basic laboratory of the Corporate Foundation "University Medical Centre"), a library with 34 seats, a computer class with 34 seats, a test centre with 34 seats.

The experts visited the library, which provides residents and employees with access to the library collection, which amounts to 1,736 items and there is direct access to the Republican Scientific and Technical Medical Library, JSC "National Centre for Scientific and Technical Information". The total literature on the accredited specialty on paper is 1736 pieces, on electronic ones – 47 pieces. The main monographs in the specialty "Endocrinology for adults, children" are the following: "Diagnostics and treatment of endocrine diseases in children and adolescents: textbook Manual / ed. by N.P. Shabalova - Moscow, 2009.", "Dedov, I.I. Endocrinology [Electronic resource]: textbook for students of medical universities", "I. I. Dedov, G. A. Melnichenko, V. F. Fadeev., Diabetic nephropathy: guidelines/T. Y. Lekhmus [et al.], Ufa: Phoenix, 2011," "Diseases of the thyroid gland: a textbook, rec. ULV according to medical and pharmaceutical education of universities in Russia/comp. L.V. Volevach [and others]. Ufa: Healthcare of Bashkortostan, 2011", "Clinical guidelines. Endocrinology: 2007: [textbook for the system of postgraduate prof. education of doctors]/G. R. Galstyan [etc.]; edited by I. I. Dedova, G. A. Melnichenko; M.: Geotar Media, 2007," "Clinical guidelines. Endocrinology: scientific and practical publication / Russian Association of Endocrinologists; edited by I. I. Dedova, G. A. Melnichenko.-2nd ed., revised. and additional M.: Geotar Media, 2012" and they are available in the library.

There is access to international databases: Thomson Reuters (Web of Science), Springer Link, OXFORD JOURNALS Medline, Scopus. Residents are aware of this. In addition, CF "UMC" has access to the scientific library of the Nazarbayev University School of Medicine, which provides information resources in English, Russian and Kazakh languages. Medical information resources include PubMed, Up to Date, Medline Complete, Clinical Key, Access medicine, Clinical trials, Cochrane Library. Resources and services are designed to support the teaching and research process of resident physicians, faculty and staff.

Before starting the corresponding discipline of the educational program, the resident receives from the teacher the “Reference Guide for Resident Physicians of the Corporate Foundation “University Medical Centre””, a syllabus and knows what skills he must acquire and develop during the training. In the process of analysing the material and technical support for training residents in the specialty “Endocrinology for adults, children” attention is drawn to the highly innovative provision of practical clinical activities at the high modern level of achievements of medical science and technology.

The updating of the material and technical base, including the library background, is carried out annually. So, over 5 years the update affected the following: 2019-190 units; 2020-190 units; 2021-50 units; 2022-50 units; 2023-50 units Including 15 units in the Kazakh language in 2023.

## **6.2 Clinical sites**

A review of the resources showed that they correspond to the goals and objectives of educational activities, for example, the clinical bases of the Diagnostic Centre, the Centre for Maternity and Childhood, the National Scientific Centre for Oncology and Transplantation with a total bed capacity of 500 were visited, and the employees of the educational organization ensure collegial and ethical relations with the medical staff, leadership of the clinical site to achieve resident outcomes. In addition, there are agreements with other medical organizations as clinical bases: LLP “National Scientific Oncology Centre”, MSI on the REM “City Multidisciplinary Hospital No. 2”, MSI on the REM “City Centre for Phthisiopulmonology” of the Akimat of Astana. A sufficient number of thematic patients is provided (for example, patients with thyroid diseases, type 2 diabetes mellitus, gestational diabetes mellitus, obesity), modern equipment and demonstrates accessibility to students, teachers provide quality training in compliance with ethics and deontology.

During a visit to clinical bases (National Scientific Centre for Oncology and Transplantation, Diagnostic Centre), 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. Thus, the National Scientific Centre for Oncology and Transplantation has inpatients admitted with endocrine concomitant pathology, which undergo preoperative observation and postoperative management. Whereas there is not provided purely inpatient management of patients with endocrine pathology without surgical intervention. There is no possibility of managing patients with emergency endocrine pathology, since patients are admitted only for planned hospitalization with actually compensated endocrine pathology for surgical treatment. The diagnostic centre allows for outpatient care of patients with endocrine pathology, but the republican level does not provide skills for dynamic observation and management of such patients (i.e., the old understanding of dispensary management of patients on site in city and district clinics). But in turn (Republican level of medical care), this makes it possible to observe and manage patients (children and adults) with rare endocrine pathologies.

In order to validate the implementation of the self-assessment report data and obtain evidence about the quality of the programs, interviews were conducted with residents. The experts asked questions about satisfaction with training, sufficient time for supervising patients, working with medical documentation, satisfaction with teaching methods and qualifications of teachers, social and moral support for residents in need, participation in the Journal Club, and the availability of international databases of professional 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 practice in managing patients in a hospital at the city level, conducting international events.

There is a simulation centre equipped with equipment, including: 14 units of simulators with an area of 62 m<sup>2</sup> at the “National Research Centre for Maternity and Childhood” and at the “Nazarbayev University School of Medicine” (NUSM). Residents of the educational program in the specialty “Endocrinology for adults, children” can practice practical skills: palpation of the thyroid gland on a mannequin, installation and use of continuous glucose monitoring with interpretation of the results.

Providing emergency care to children with type 1 diabetes mellitus when selecting an insulin pump infusion program is also included in the training program.

Residents showed their commitment to the organization of 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 work, financing, and demonstrated proficiency in English when answering. Experts examined residents' documents (portfolios, resident assessment results, checklists, residents' survey results, individual programs).

### **6.3 Information technology**

Experts assessed the access of residents and teachers to the necessary web resources, including IT technologies and infrastructure of the CF "UMC", thus ensuring uninterrupted operation of the Internet, the percentage of access to the Internet is 100%, a local computer system Bitrix 24 has been created, a personal information manager Microsoft Outlook, there is a video broadcast system in conference rooms, a subscription to the professional ZOOM platform. There is free access to the Internet for visitors to the CF "UMC" centres. Visitors to the centres can access the Internet through personal mobile phones (wi-fi), as well as access to electronic media. Every year the library subscribes to various titles of newspapers and magazines and receives periodicals: NRCMC receives 20 magazines, 2 newspapers "Egemen Kazakhstan", "Kazakhstanskaya Pravda". Residents confirmed that they can use a local computer connection and have access to a personal information manager, Microsoft Outlook, including when preparing for classes.

In order to create conditions for timely receipt of information by resident doctors, the following were created: a) a page on the social network Facebook, thanks to which resident doctors have the opportunity to follow news on residency programs and learn important events that occur at CF "UMC"; b) a single email in which all work curricula and plans, training schedules, duty schedules, vacation schedules, etc. are loaded important information. Each resident physician has login access; c) a WhatsApp group, which includes all group leaders, which allows you to quickly transmit/receive the necessary information; d) groups on the Bitrix24 Internet for resident doctors.

Information and communication technologies are represented by the following: an updated fleet of computer equipment, a computer class has been created on the basis of the National Research Centre for Maternity and Childhood with 11 computers, and the website of the CF "UMC" is being improved. The educational program uses technologies such as a video broadcast system in conference rooms, and a subscription to the professional ZOOM platform. During self-study, residents use presentation form and the ZOOM platform, and it is planned to launch the Platonus program. Access to patient data and the healthcare information system is provided through the local program of the CF "UMC" Medical information system "AKGYUN", Bitrix HIS (Hospital Information System). There is access to INFINITT, Laboratory.lnk, AIS "Polyclinic", EDI (electronic database of inpatients), Registers of the assigned population and Register of pregnant women, Oncoregister, portals "Hospitalization Bureau" and other information systems. For faster communication between workers within centres, most employees have portable communication devices (Dect). The resident supervises 6 patients per day, including completing the necessary documentation under the supervision of a faculty member.

Such elements of distance learning methods are carried out on the basis of the "Rules for the organization of additional and non-formal education of vocational education of the CF "UMC"" (Approved by the decision of the Board of the CF "UMC" dated February 15, 2018 No. 3). Recordings of online classes and lectures are available to students at any time in the Moodle program, as independent work of residents in the form of presentations or solving test tasks, used when training residents on the topics "Research methods in endocrinology: instrumental methods for studying the endocrine glands (ultrasound, CT, MRI, radioisotope scintigraphy)." Independent training of resident doctors and students is ensured by access to educational resources of the library and the Internet. In order to implement programs using distance learning technologies (DET), since 2016, the CF "UMC" has implemented an e-learning management system based on the Moodle platform: <http://umc.org.kz/moodle/>.



Students have the opportunity to obtain educational and methodological literature in electronic form in the library of the CF "UMC" and NUSM. At the same time, ethics is observed, documented in accordance with the developed regulations "Regulations for the Grand-round residency of the Corporate Foundation "University Medical Centre".

#### **6.4 Clinical teams**

In order to develop the experience of working in a team among residents, the educational organization holds events such as councils and interdisciplinary commissions; at these meetings, residents independently represent patients and monitor the recommended management of these patients. Experts attended a journal club meeting on the topic of rare pathologies in children, where the results of teamwork of residents in the specialties of pediatrics were presented. Interprofessional interaction is also carried out through the participation of resident doctors in regular clinical discussions of patients, when specialists of different profiles are involved, meetings of the journal club (JC), and the educational clinical commission (ECC). The collegiality of the work of residents can be seen in teamwork and effective interaction with other healthcare professionals, including direct work together with clinical workers of the centers of the CF "UMC" in all areas of their activity, discussion of tactics of management, treatment of patients in the department and participation in pathomorphological, clinical conferences, in various educational events (journal club, educational and clinical commission) and scientific and practical conferences. Residents can conduct health education activities among patients and educational activities among interns. Residents noted the following points in their questionnaires, for example, residents wanted the cycles to be integrated with urban medical institutions, where there is a higher flow of patients. There is not enough space, there is not enough space in the department for all residents, there are not enough computers to do the work, fill out the initial form, etc. There are not enough seminars, surveys, testing the level of theoretical knowledge or conducting practical classes with analysis of topics, while receiving practical skills are sufficient "We get practical skills in full"; "Conduct classes for residents, give lectures, conduct practical skills." Residents' desire to study abroad during their residency training "I wanted more opportunities to study abroad!" Get opportunities to earn extra money on a part-time basis "Give the opportunity to get a part-time job", "Pay for duty, as in other hospitals."

In the questionnaire, residents noted that they have free access to patients at clinical sites and all the conditions for improving their practical skills - 100% of teachers completely agree with this, 0% partially agree, 1% found it difficult to answer.

#### **6.5 Medical research and advances**

The educational organization carries out research work by resident doctors, which is approved at a meeting of the EMC, for example, protocol No. 10 dated 06/06/2023, the work of resident doctor Asel Isabaeva on the topic "Early detection of late complications of diabetes mellitus" was presented. In general, the CF "UMC" does not conduct a research program or scientific and technical program in the specialty "Endocrinology for adults, children". Over the past 5 years, progress has been made in the number of scientific research works carried out by residency graduates as follows: in 2018, at the meeting of the EMC, the results of 23 research works by residency graduates were heard in the form of a presentation. In 2019 it was results for 48 projects. 105 research papers were accepted for 2020-2023, including 39 research papers for 2023. Residents of 1 and 2 years of study are involved in the implementation of scientific work (or fragments). They perform such types of work as resident doctors conduct independent research work (RW), performed under the supervision of a supervisor to develop the resident doctor's ability to conduct research, interpret results and comprehensively study the necessary literature. The IR of a resident doctor determines the level of professional qualifications of the resident doctor, the degree of mastery of the methodology of scientific knowledge. All information about scientific work is included in the resident's portfolio, the structure of which is based on the Regulations "Job description of a resident physician in the specialty "Endocrinology for adults, children" (Approved by the decision of the Educational and Methodological Council of the CF "University Medical Centre" dated September 15, 2023 No. 15 ).

The educational program includes topics where residents study research methods in medicine (Radiation and radioisotope diagnostics). At the same time, the total hours are 180 (6 credits), and residents are allocated 30 hours (1 credit) for research work.

If residents carry out scientific and practical research, they are provided with access to instrumental and laboratory equipment. RDC is the first outpatient medical organization in the CIS countries certified by the international accreditation commission JCI. The largest laboratory centre in Kazakhstan in terms of the range of laboratory tests (more than 650 types). Certified in accordance with international standards ISO 15 189:2012 (laboratory service). The first medical organization in Kazakhstan equipped with PET/CT and SPECT.

For example, in the specialty “Endocrinology for adults, children” it is planned to conduct research work on the topics “The impact of COVID-19 on the risks of developing cardiovascular complications of type 2 diabetes mellitus”, “Identification of diabetic nephropathy in children with type 1 diabetes on an insulin pump and injection insulin therapy”, “Relationship of insulin pump therapy and insulin injection therapy with severe hypoglycaemia and glycaemic control in children with type 1 diabetes mellitus.” This information was obtained during interviews with teachers A.K. Durmana.

An interview with 3 teachers, including 3 full-time teachers, showed that there are both successes and problems in the management of education, depending on the specific base (admission of residents to equipment, a sufficient number of case patients, time to maintain medical records, independent work). 2-year resident Asel Isabaeva takes part in the scientific and practical conference of paediatricians and paediatric surgeons of Kazakhstan with international participation “Paediatrics of Kazakhstan: yesterday, today and tomorrow”, Almaty, 2023 “Early detection of late complications of diabetes mellitus.”

## **6.6 Educational expertise**

Expertise in education includes the following areas - a “360 Evaluation” survey to obtain information on improving the quality of educational organization, which is formalized in the form of research, including in order to ensure the quality of educational programs that the EMC operates.

The educational organization participates in such educational projects as, according to JCI, the CF “UMC” has a quality management system service to monitor clinical performance indicators and minimize medical errors, including those of students, which in turn improves the quality of training for resident doctors. As a result of the implementation of these projects, the “Introductory briefing checklist (Annex 2 to the Manual for working with personnel of the corporate foundation “University Medical Centre” and its branches” was introduced).

Employees of the Department of Education conduct annual monitoring of the quality of educational programs and the results are included in the decisions of the Educational Institution aimed at improving the quality of educational organization.

Sociological surveys, including questions of the quality of education, could become one of the mechanisms for examining education. However, the CF “University Medical Centre” has not drawn up a plan and/or has not developed standard operating procedures (SOP, Standard Operating Procedure) to prevent or correct possible identified problems.

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, annually, following the results of the academic year, it conducts a comprehensive “360 assessment”, presents information at a meeting of the EMC, based on the results of which it forms conclusions and recommendations for making changes in order to improve the organization of the educational process at the CF “UMC”.

Mechanisms for motivating and developing the interest of employees and teachers in conducting research in the field of postgraduate education are financially interested and non-financially awarded awards in the nomination “For the best scientific publication of 2019” and letters of gratitude “For contribution to the development of educational and scientific activities of UMC.” This is documented in the Decision of the Board of the CF “UMC” No. 4 dated April 04, 2022, the Rules for planning,

organizing and implementing scientific research were approved and implemented. The rules are aimed at supporting and regulating the scientific activities of employees of the CF “UMC”. In addition, by decision of the Board of the CF “UMC” No. 15 dated July 2, 2021, the procedure for distribution and methodology for calculating remuneration of CF “UMC” employees involved in educational, scientific and innovative activities was approved. The procedure regulates payment within the framework of scientific activities and ongoing projects. In addition, the minutes of the in-person meeting of the Board of the CF “UMC” No. 20 dated September 07, 2021 approved the key performance indicators (KPIs) of clinical academic departments for 2021-2023, which include indicators of educational and scientific activities. In accordance with the KPIs, the degree of involvement in educational and scientific activities is assessed.

Resources for clinical training are updated annually and in 2023, the residency program in the specialty “Endocrinology for adults, children” will be provided with the following: test strips for rapid diagnostics of blood glucose.

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

The academic policy for resident training includes the possibility of training at alternative organizations if existing clinical sites do not cover all topics of the educational program. At the same time, the training of residents in the specialty “Endocrinology for adults, children” is carried out on the basis of the National Scientific Centre for Oncology and Transplantation and the National Research Centre for Maternity and Childhood, where there are somatic paediatric and adult departments with a total bed capacity of 500. Disciplines of the educational program such as “Endocrinology” in the hospital (adult) and “Endocrinology in the hospital (children)”, residents study in a planned hospital in a regular somatic department, and not in a specialized department without emergency medical care for these patients. The preparation of scientific publications is carried out under the guidance of a teacher and does not require additional training bases. However, residents can participate in academic mobility within the country, for example, an agreement has been concluded with JSC National Scientific Cardiac Surgery Centre; JSC “Research Centre of Neurosurgery”; MSI on the REM “City Multidisciplinary Hospital No. 2” of the Akimat of Astana; MSI on the REM “City Centre for Phthisiopulmonology” of the Akimat of Astana; MSI on the REM “City Multidisciplinary Hospital No. 3” of the Akimat of Astana; MSI on the REM “City Centre for Phthisiopulmonology” of the Akimat of Astana and abroad, as there is an agreement with the Giannina Gaslini Institute, Via Gerolamo Gaslini, Genoa, Italy.

Every year, resident doctors undergo internships in near and far abroad countries: in 2019-2023, 9 students took part in such an academic mobility program. There is a document on the transfer and offset of learning results between educational organizations: Giannina Gaslini Institute, Via Gerolamo Gaslini, Genoa, Italy. For example, resident doctors for 2 years in the specialty “Endocrinology for adults, children” Isabaeva Asel Erbolovna from 11/08/2022 to 11/24/2022 and Umerzakova Aigerim Aibekovna from 10/30/2022. 2023 to 11/11/2023 trained at the Giannina Gaslini Institute, Via Gerolamo Gaslini, Genoa, Italy.

4 agreements and 19 memorandums were concluded with organizations, universities, associations, including countries such as the USA, Russia, Finland, Lithuania, Slovenia, Korea, Israel, Italy, Ghana, etc. For 2019-2023 at the expense of the CF “UMC” sent 26 resident doctors to international conferences, forums, and congresses, 8 of them abroad. Such cooperation makes it possible to introduce the following methods and technologies of training into residency programs: based on international practice, assessment forms of formative and summative evaluation, requirements for a minimum number of practical skills, practicing skills on simulation equipment, participation in educational events (journal club, grand round) contribute to integrated training and involvement of resident doctors in practical clinical work, provide inter-professional education. For example, in the specialty of an accredited educational program, international cooperation is carried out with the Giannina Gaslini Institute, Via Gerolamo Gaslini, Genoa, Italy.

Teachers of educational organizations actively participate in republican and international events. Thus, 7 teachers took part in presentations at international and national conferences. Such

participation allows you to apply the information received in the educational process such as CBL, problem-based learning (PBL), simulation learning. For example, in the specialty of the educational program “Endocrinology for adults, children”, scientific and practical events are held, such as the presentation of the report “Diagnosis of diabetes among women of reproductive ages with obesity” at the IDF 2022 Congress organized by the International Diabetes Federation (Lisbon, Portugal, 5 - December 8, 2022) resident doctor Asel Isabaeva and teacher-mentor A.K. Durmanova. Over a period of 5 years, 8 teachers were trained abroad on the topics “On the methodology for developing examination materials for students and graduates of the Foundation” in the amount of 56 hours (2020), “Innovative research projects: from basics to winning proposals for participation in NIH, European Union programs” (from June 25 to November 15, 2019, School of Medicine, University of Thessaloniki, Greece (Thessaloniki Greece)).

**Conclusions of the EEC on the criteria.** Comply with 18 standards (including 11 basic, 7 improvement standards): fully - 18, partially - 0, do not comply - 0

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

- 1) To provide access for residents to manage inpatient adult patients with endocrine pathology.
- 2) To provide access for residents to manage patients in need of immediate and emergency endocrine care

## **Standard 7: PROGRAMME EVALUATION**

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

Monitoring of the educational program is based on a competency-based approach and includes a system of evaluation forms “Evaluation 360”, which ensures transparency of the process and results. An annual analysis of the educational program will allow the educational organization to make adjustments and improve the content. Information about the review of the educational program in the specialty “Endocrinology for adults, children” was not provided. The residency program was discussed by the team of the Department of Paediatrics and the Department of Internal Medicine of the Corporate Foundation "University Medical Centre" and approved by the Educational and Methodological Council (Protocol No. 5 of April 27, 2023). The Department of Education annually assesses the quality of the educational program through the “360 Evaluation” survey, ensuring the participation of all stakeholders.

When evaluating the program, the goals and objectives of training and the final learning outcomes are taken into account (through assessment of residents, independent examination). The process of implementing the educational program is assessed through feedback from residents and teachers and the achievements of graduates. For example, a survey of residents of 1-2 years of study, including those in the specialty “Endocrinology for adults, children”, 39 resident doctors participated in the survey, of which 28% did not answer all questions. The objectives of the survey were: 1. to identify the degree of understanding of the main directions of the residency program of the CF “UMC” by students; 2. assessment of opinions regarding the effectiveness of educational activities; 3. assessment of the level of satisfaction of resident doctors. The survey demonstrated the following: Resident physician's attitude toward the residency program 59.5% of respondents expressed their satisfaction with the residency program.

A survey of 15 teachers, conducted from July 17 to July 20, 2023, showed that Academic staff accurately and clearly understand the purpose and objectives of the residency program.

The assessment of approaches to the admission of residents is carried out on the basis of the “Rules for admission to the residency program of the Corporate Foundation “University Medical Centre” (Annex 4 Approved by the decision of the Board of the Corporate Foundation “University Medical Centre” dated 03/01/2018 No. 5).

The selection and compliance of teachers and teaching methods is also carried out through feedback from residents. For example, the results of the “360 Evaluation” survey of 2 and 3 years of resident training (39 residents) in 2022 and 2023 showed that teachers showed interest in training

resident doctors, 60.5% of respondents responded positively, 10.5% answered negatively. As a result, only 59.5% of respondents expressed their satisfaction with the residency program.

Evaluation of methods for assessing residents' knowledge and skills is carried out using formative assessment and assessment of practical skills, and 57.7% of respondents demonstrate a positive assessment of their effectiveness.

The assessment of the sufficiency and quality of educational resources is carried out by the Department of Education using the “360 Assessment” survey method and shows that 81.1% of respondents have free access to modern literature and the library; 74% - have access to computer programs; 62.2% regularly have access to simulation equipment.

In the process of assessing the quality of residency educational programs, it was found that along with the achievements (91.9% positively assess the number and variety of patients in the departments, 81.1% of resident doctors are considering the possibility of participating in scientific events and research of the CF "UMC" and 81, 6% of respondents believe that resident doctors are given enough responsibility to make decisions when managing patients in accordance with their level of training) there are a number of problems and shortcomings, including 21% who consider the level of support and assistance from doctors to be insufficient.

### **7.2 Feedback from faculty and residents**

Educational organizations regularly collect feedback from teachers, residents, and employers. There is no information from employers on the results of the survey. There is a questionnaire for employers. The questionnaire for employers contains 9 questions and they are devoted to the quality of training of residents of CF “UMC”. Results of a survey of employers conducted in 2022 and 2023 are not presented.

To survey teachers, a questionnaire was developed, including 28 questions, including on professional competencies, communication skills, is able to act within the legal and organizational field of the healthcare system of the Republic of Kazakhstan in his specialty, is able to use information technology to optimize training and identify needs and develop a plan for his personal and professional development. Results of a survey of teachers conducted in 2022. and 2023 showed that 83.6% of teaching staff gave a positive assessment of the provision of resident doctors with various resources for training. The analysis shows that only 57.2% of resident doctors are independent, 42.8% need supervision when communicating with patients and consulting.

A survey of residents is conducted once a year and is devoted to such topics as the effectiveness of the use of assessment forms and methods for monitoring the improvement of practical skills, the level of effectiveness and informativeness of new educational events (Journal club, Grand round) of the residency program, sufficient practice is provided to improve clinical knowledge and practical skills, volume and quality of acquired knowledge, methods and form of teaching, level of theoretical and practical application of acquired knowledge.

Information based on the results of a survey of employers conducted in 2022 and 2023 are not presented. This is due to the fact that in the specialty “Endocrinology for adults, children” two residents were graduated in 2023, since the training of residents is carried out only over the last three years, and the duration of residency training is 2 years.

As a result of analysing the results of a survey of teachers and residents, the following changes occurred: 79% of surveyed resident doctors positively assess the level of support and assistance from doctors; 60.5% of respondents responded positively by assessing the level of interest of the teacher in training resident doctors; 73.7% of respondents rate the level of support and direction from residency staff positively.

The results of the employer survey were not analysed.

### **7.3 Resident and Graduate Outcomes**

The results of residents and graduates are indicators of the quality of educational programs. The final results of the assessment of residents in various specialties in 2022 show the following: the share of residency graduates who passed the final certification procedure and received “good” grades from the total number of graduates in 2020 was 62.52%, in 2021 – 60%, in 2022 year - 87.5%, 2023 -

74.19%, and "excellent" in 2020 - 70.81%, 2021 - 65%, 2022 - 87.5%, 2023 - 64.41%. The share of the total number of graduates in 2019-2022 who received "good" was 100%, in 2023 "excellent" 80%.

Thus, the results of an independent assessment of residents in 2023 showed that 74.19% received a "good" rating and 64.41% "excellent". The highest rate is for residents in the specialty "Neonatology", and the lowest rate of academic performance is for residents in the specialty "Radiology".

The teachers assessed the level of clinical training of residents in 2021 and 2022, where the training of resident doctors in the specialty "Endocrinology for adults, children" in the management of children on an insulin pump with type 1 diabetes mellitus and skills in interpreting the results of MRI/CT studies is at a high level. Experts noted the following successes in the clinical training of residents: the clinical base of the CF "UMC" makes it possible to observe and manage patients (children and adults) with rare endocrine pathologies, manage patients with "Diabetic Foot Syndrome", "Radiation and radioisotope diagnostics", "Installation, use of continuous glucose monitoring and interpretation of the results obtained." At the same time, experts also identified shortcomings in the clinical training of residents, which include the lack of opportunity to manage inpatient patients with endocrine pathology without surgical intervention, there is no possibility of managing patients with emergency endocrine pathology, since patients are admitted only for planned hospitalization with actually compensated endocrine pathology for surgical treatment, the republican level of clinical bases does not provide skills for the dynamic observation and management of such patients (i.e., the old understanding of dispensary management of the patient at the site in city and district clinics).

Monitoring of residency program graduates is carried out through employer surveys. Residents of the class of 2023 were the first graduate (2 people in total) and were employed in "Salauatty Astana" LLP and "Senim Clinic" LLP, medical organizations. No analysis of graduates' evaluations from the employer was provided.

Since the entire process of training and monitoring of residents is concentrated in the Department of Education, the results of evaluating the clinical practice of residents and graduates are immediately sent to responsible persons. Responsible for residency programs is program director A.K. Durmanova. To improve the educational process, the following has been done in the last 2-3 years: as an incentive, the best resident doctors were sent to study at the Giannina Gaslini Institute (Via Gerolamo Gaslini, Genoa, Italy) resident doctors for 2 years in the specialty "Endocrinology for adults, children" Isabaeva Asel Erbolovna from 08.11.2022 to 24.11.2022 and Umerzakova Aigerim Aibekovna from 30.10.2023 to 11/11/2023.

#### **7.4 Stakeholder engagement**

Educational organizations have approaches to involving teachers and residents in evaluating the educational program and monitoring its implementation. Thus, residents are included in Tobyl A.S. in the specialty "Paediatric Surgery" and Mukhamedzhan G.B. in the specialty "Obstetrics and gynaecology for adults, children" are included in the advisory body "Accounting and Methodological Council" and participate in the discussion of all issues of the educational process. The results of the evaluation of the educational program are announced at a meeting of the Educational and Methodological Council.

In interviews with graduates of the CF "UMC", their confidence in their knowledge when applying for a job and their high interest in them as specialists by the employer are noted.

In general, the educational program is integrated into the clinical activities of the CF "UMC" and is built on the innovative achievements of modern medical science and technology, free access for residents to highly qualified specialists allows them to plunge into practice and gain practical skills on a wide scale, equipping clinical bases with modern medical equipment. The medical educational centre of the CF "UMC" makes it possible for residents to master these new technologies during the training process, the educational program built on mentoring and supervision makes it possible to graduate residents as a "piece product", the CF "UMC" has the necessary resources in training resident doctors in educational programs.

## 7.5 Procedure for approval of educational programs

The educational organization has established a system for documenting the educational process, including approval of the educational program, which includes the following: providing for evaluation of the program at the stages of planning, implementation, analysis of results and implementation of changes.

The educational program is approved after discussion by the team of the Department of Paediatrics and the Department of Internal Medicine of the Corporate Foundation "University Medical Centre" and approved by the Educational and Methodological Council based on criteria such as standard curricula, working curricula and individual curricula. The stakeholders involved in the approval of the educational program are the Department of Quality Management and Patient Safety (QM&PS) under the leadership of the Deputy Director for Quality Management and Patient Safety, whose responsibilities include planning and coordination, improvement of the management system, issues of improving the quality of services provided, conducting internal audits.

A system for monitoring the quality and compliance of clinical bases, material and technical equipment and educational resources has been developed and implemented, which includes the following: the presence of international JCI accreditation indicates the compliance of the clinical base, material and technical equipment with international standards.

**Conclusions of the EEC on the criteria.** Compliant out of 10 standards (including 7 basic, 3 improvement standards): completely -10, partially -0, do not comply - 0.

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

- 1) To actively provide feedback to employers regarding their feedback on residency graduates.
- 2) To expand the work of the internal audit or quality management department in the educational process.

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

### **Evidence of compliance:**

#### **8.1 Management**

Residency training is carried out in accordance with the requirements of such regulatory rules regarding the admission of residents, such as "Rules for organizing the educational process in the residency of the CF "UMC"" (Approved by the decision of the Board of the CF "UMC" No. 3 of September 29, 2021), "Requirements for content, execution and protection of RW for the residency program" (Protocol No. 2 approved by the EMC dated April 28, 2018), "Rules for admission to the residency program of the corporate foundation "University Medical Centre"" (Approved by the decision of the Board of the CF "UMC" No. 5 dated March 1. 2018). The evaluation of knowledge and skills is carried out on the basis of the "Rules for organizing the educational process in the residency of the corporate foundation "University Medical Centre"" (Approved by the Board of the CF "UMC" dated March 29, 2021 No. 6). To implement the educational program, the educational organization has an organizational structure in which the educational sector is represented by the Department of Education. The experts got acquainted with the documents on the completion of resident training, including the "Minutes of the meeting of the Final Certification Commission for the residency specialties of the CF "University Medical Centre" 2022-2023 dated July 13, 2023." and The final results of the evaluation of professional preparedness (end-of-course assessment) of graduates of the residency educational program for the 2022-2023 academic years of the Corporate Foundation "University Medical Centre" were provided by the LEA "National Centre for Independent Examination". As an example, the results of 2023 are given, since the graduation of residents in the specialty "Endocrinology for adults, children" in 2023 was the first time these documents reflected the results of independent certification of residency graduates. A certificate of completion of residency is issued to residents with the qualification "Endocrinology for adults, children", signed by the chairman and secretary of the Final Certification Commission, as well as the head of the CF "UMC" and

contains information about who issued the state document and on the basis of which order the certificate of completion of residency was issued.

“Instructions for the development of educational and methodological documentation and a system for assessing the educational achievements of resident doctors of the Corporate Foundation “University Medical Centre” are “Instructions” for ensuring the quality of postgraduate education developed in accordance with the Rules for organizing the educational process in the residency of the Corporate Foundation "University Medical Centre" and Approved by the decision of the Board of the Corporate Foundation "University Medical Centre" dated May 13, 2021. Protocol No. 2 (as amended on September 15, 2023, No. 15). Teachers and clinical mentors of the CF “UMC” take part in the development of the “Instructions” with the participation of the head of the residency program, and are reviewed / approved at a meeting of the UMS CF “UMC”.

Residents and teaching staff are aware of the program through free access on the UMC CF website.

## **8.2 Academic leadership**

The responsibilities and duties of the management and employees for postgraduate medical education are determined, which are assigned to the Department of Education and enshrined in the document “Regulations on the Department of Education” (Annex No. 7 to the minutes of the Board of the Corporate Foundation “University Medical Centre” dated 01.08.2023 No. 11. Approved by the decision of the Board of the Corporate Foundation "University Medical Centre" dated 08/01/2023 No. 11).

Transparency of management and decision-making in the educational process is ensured by organizing the EMC advisory body of the CF "UMC", which is reflected in the document "Regulations on the Educational and Methodological Council of the Corporate Foundation "University Medical Centre"" (Annex 2 Annex to the decision of the Board of the Corporate Foundation "University Medical Centre" dated November 21, 2019, No. 26).

The educational organization of the Corporate Foundation "University Medical Centre" evaluates the leadership of the educational process and employees in relation to achieving the mission of the residency program, the expected final learning outcomes by providing feedback to residents and teachers, conducting certification based on the document "Strategic Plan for 2019-2023" , audits on the implementation of an integrated academic medical centre model that integrates education, research and clinical practice and generates scientific achievements and innovations to ensure excellence in the delivery of patient-centred and family-centred care.

To the question of the questionnaire “Do the heads of the organization listen to your opinion regarding issues related to the educational process, research work, clinical work,” 92% of teachers answered that systematically, 0% answered “sometimes”, 1% “rather rarely”, 0% “never”.

## **8.3 Training budget and resource allocation**

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. The following structures responsible for budget management, including residency programs: financial and economic department, accounting and finance department.

A financial plan is drawn up annually, including a target budget for training, which amounts to 1,398,900 tenge. The financial plan is in line with the strategic plan for the period 2019-2023. The share of funding for residency programs, taking into account the expansion of residency specialties, increased from 46,439,940.7 tons in 2021 to 109,963,106.39 tons in 2023. The most funds are spent on purchasing books, purchasing simulation equipment, and travel allowances expenses of resident doctors sent to conferences and internships. During a meeting with employees of the financial sector, experts found out that there is a personal scholarship as an incentive for the best resident paid by the CF “University Medical Centre”. This scholarship is awarded as a result of a competition among residents of the Republic of Kazakhstan and is paid during the year from the funds of the CF “University Medical Centre”.



Total income from educational services in 2020 amounted to 47,831,638.69 tenge, in 2021 46,439,940.7 tenge, in 2022 108,155,649.6 tenge, for the 1st-3rd quarter of 2023 109,963,106.39 tenge. Including income from paid educational services in 2020 -17,182,431.74 tenge, in 2021 - 11,702,733.27 tenge, in 2022 -29,860,658.31, in 2023 (6 months) - 46,547 356.47 tenge.

A financial report is provided annually, which is approved by the board of the CF "University Medical Centre" and demonstrates, among other things, the distribution of educational resources in accordance with needs and the covering of all types of expenses (appropriate material and technical equipment, scientific and educational laboratory facilities, development of information networks are provided, wage fund with mandatory contributions) for the implementation and development of the residency program.

#### **8.4 Administration and management**

There is an appropriate administrative (317 people) and Academic (206 people) staff, including management: the governing body of CF "UMC" is the Board (<http://umc.org.kz/about/pravlenie/>), Chairman - Doctor of Medical Sciences ., Pya Yuri Vladimirovich; residency issues are supervised by the Deputy Chairman of the Board of the CF "UMC" Nurgul Kalieva Khamzina (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 the corporate foundation "University Medical Centre"); Clinical and academic departments and the Department of Education are responsible for organizing residency programs; The Department of Education reports to the Deputy Chairman of the Board of the CF "UMC"; The Department of Education is managed by Director Syzdykova Alma Alibekovna.

To effectively manage the educational process, employees of the Department of Education underwent continuing professional development in 2023 on the topic: "Methodology and educational technologies in residency."

Experts found that the quality management system (QMS) was implemented in 2012 and includes regular internal and external audits, including those supporting the process residency program. For example, the National Research Centre for Maternity and Childhood of the corporate foundation "University Medical Centre" is the first clinic in Eastern Europe and Central Asia, which in March 2012 passed the accreditation program for inpatient organizations according to JCI standards. In April 2015, the National Research Centre for Maternity and Childhood of the corporate foundation "University Medical Centre" re-accredited JCI, receiving 9.9 points out of 10, thereby confirming that it successfully supports all processes to ensure continuous improvement of quality and patient safety. The Republican Diagnostic Centre of the Corporate Foundation "University Medical Centre" is the first outpatient organization in Eastern Europe and Central Asia, which in May 2014 successfully passed the accreditation program for outpatient organizations according to JCI standards. As of 2016, only 126 outpatient organizations in 23 countries worldwide have a certificate of compliance with JCI international standards. In 2021, the Corporate Foundation "UMC" again confirmed compliance with international standards and successfully passed the JCI re-accreditation procedure.

The quality management and patient safety department is responsible for the implementation and monitoring of the QMS.

Teachers are aware of the QMS, which is confirmed during their interviews. The main documents of the QMS are the following: "Organizational structure of the CF "UMC"" (Approved by the decision of the Board of the CF "UMC" dated April 21, 2023 No. 7); coordination of data collection, validation, data analysis and transfer of cumulative (aggregated) data on quality indicators to the relevant commissions and structural divisions of the centres; providing the Hospital Council with reports on quality indicators, achievement of key performance indicators, key performance indicators, results of examination of medical records and other data; CF "UMC" conducts regular management reviews to improve quality based on internal audits in centres, tracers in accordance with international JCI requirements, conducts a continuous process of quality improvement and, based on the analysis, generates a report and sends it to the JCI accreditation body.

Evaluation of the administration and management of the educational process in general and the residency educational program in the specialty "Endocrinology for adults, children" is carried out by

auditing the quality of medical services provided, including by resident doctors, and the results demonstrate such achievements as the absence of complaints and complaints from patients and mothers when serving the child population.

### **8.5 Requirements and regulations**

The educational organization complies with the recommendations of national authorized bodies, including the Ministry of Science and Higher Education of the Republic of Kazakhstan and the Ministry of Health of the Republic of Kazakhstan. Thus, in accordance with the classifier of residency specialties (On approval of the Classifier of areas of training for personnel with higher and postgraduate education; Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 13, 2018 No. 569), in the organization of education at the beginning of the 2023-2024 academic year, training is provided in 21 specialties and training in 21 specialties is planned. All educational programs are provided with relevant educational and methodological documents and teachers.

**Conclusions of the EEC on the criteria.** Compliant out of 11 standards (including 8 basic, 3 improvement standards): fully - 11, partially - 0, do not comply - 0.

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

1) The presented educational documentation (syllabus) approved by internal regulatory and procedural acts has the autonomy of its presentation (content), but when implementing the Platonus electronic journal this will cause difficulties and will need to be integrated under the criteria of the Platonus electronic program.

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

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

The procedure for updating the organizational structure has been carried out since 2015 and in 2023, changes were made such as direct management of residency programs and coordination of the activities of resident doctors since 2016 by the Department of Postgraduate Education of the Department of Science and Education. After the restructuring of the CF "UMC" on August 7, 2018, departments of the Department were abolished and 4 sectors of science and education were created on the basis of NRCMC, RDC, National Centre for Children's Rehabilitation, NSCOT. Currently, clinical and academic departments and the Department of Education are responsible for the organization of residency programs on the basis of the "Regulations on the Department of Education" (Annex No. 7 to the minutes of the Board of the Corporate Foundation "University Medical Centre" dated 01.08.2023 No. 11. Approved by the decision of the Board of the Corporate Foundation "University Medical Centre" dated 08/01/2023 No. 11).

Updates have been made to the resident training process, such as the use of distance technologies in the educational process; it is possible to conduct in a distance format: journal clubs, lectures, project defences, consultations, meetings on educational and methodological issues, etc.

Updates are made by identifying problems using questionnaires as feedback and are accompanied by analysis of the results obtained. Thus, "Analysis 360" ("360 Evaluation") in the "Open Questions" section of the CF "UMC" is defined as an area for improving the study of the issue of transferring all assessment forms to electronic media.

The educational organization annually allocates resources for continuous improvement, so the total income from educational services in 2022 amounted to 108,155,649.6 tenge, for 9 months of 2023 - 109,963,106.39 tenge. For example, there is income from paid educational services in 2022 - 29,860,658.31, in 2023 (6 months) - 46,547,356.47 tenge, which allows increasing the amount of funding to improve educational services.

To purposefully improve the educational process, sociological research is carried out, including the "360 Evaluation". In the process of this analysis, approaches to teaching in residency were revised, and methods such as making a report in front of an audience were introduced. Since during preparation, residents are engaged in a scientific project, perhaps its results need to be presented in

front of a large unfamiliar audience, i.e. development or training of practical speaking skills by a resident doctor. Thus, 2-year residents Asel Isabaeva received an invitation to participate in the international conference with a report “Diagnosis of diabetes among women of reproductive ages with obesity” at the IDF 2022 Congress organized by the International Diabetes Federation (Lisbon, Portugal, December 5-8, 2022.)

**Conclusions of the EEC on the criteria.** Comply with 2 standards (including 1 basic, 1 improvement standard): fully -2, partially -0, do not comply - 0.

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

1) Maximum digitalization of the educational process with the abandonment of paper routine work.

**CONCLUSION:**

When conducting an external assessment of the educational program, it was found that out of **114 standards** (including 80 basic standards and 34 improvement standards), 109 accreditation standards demonstrate full compliance, including 78 basic standards and 31 improvement standards. Partially they were met 2 basic standards and 3 improvement standards. No non-compliance with standards has been identified.

**5. Recommendations for improving the educational program in the specialty “Endocrinology for adult, children” of the corporate foundation “University Medical Centre”:**

1. To expand the medical expert and manager section in the educational program for residents in the specialty “Endocrinology for adult, children”, since training is carried out on the basis of a medical organization that provides highly specialized medical care CF “University Medical Centre” is a flagship with high autonomy, academic excellence and educational potential. (Standard 2.3.3)

2. Assignments are presented on paper. It is necessary to digitalize control and measurement systems. For the further possibility of conducting and evaluating their validity. (Standard 3.1.1; 3.1.2; 3.1.4)

3. Assessments must be digitalized into a single electronic assessment journal, Platonus. (Standard 3.1.4)

4. To involve residents in the policy of admission and selection of residents. For example, organize a public association of graduates of the residency program of the CF “University Medical Centre”, which can reflect an opinion on the organization’s policies. (Standard 4.1.6; 4.3.4)

5. To introduce into internal documents issues regulating or reflecting approaches to the admission of residents with disabilities. (Standard 4.1.1)

6. To reduce the clinical load of teachers conducting classes for residents. (Standard 5.2.1)

7. To actively carry out advanced training for employees involved in training residents in teaching methods (conduct pedagogical advanced training). (Standard 5.2.2)

8. It is mandatory to attract teachers for medical residents with at least 5 years of experience and medical qualifications of at least the first qualification category. (Standard 5.1.1)

9. To provide access for residents to manage inpatient adult patients with endocrine pathology. (Standard 6.2.1)

10. To provide access for residents to manage patients in need of emergency and urgent endocrine care (6.2.1)

11. To actively provide feedback to employers regarding their feedback on residency graduates. (Standard 7.2.1)

12. To expand the work of the internal audit or quality management department in the educational process. (7.5.3)

13. The presented educational documentation (syllabus) approved by internal regulatory and procedural acts has the autonomy of its presentation (content), but when implementing the Platonus

electronic journal this will cause difficulties and will need to be integrated under the criteria of the Platonus electronic program. (Standard 8.1.1)

14. Maximum digitalization of the educational process with the abandonment of paper routine work. (Standard 9.1)

## 6. Recommendation to the ECAQA Accreditation Council

The members of the EEC established the compliance of the residency educational program in the specialty “Endocrinology for adult, children” with the Accreditation Standards and came to a unanimous opinion to recommend that the ECAQA Accreditation Council accredit this program for a period of 5 years.

Status as part of the EEC	Full name	Signature
Chairman of the EEC	Turgunov Yermek Meiramovich	
Foreign expert	Ziganshina Liliya Yevgenevna	
Foreign expert	Saatova Guli Mirakhmatovna	
Academic expert	Zhantelieva Lyazzat Asanovna	
Academic expert	Madyarov Valentin Manarbekovich	
Academic expert	Idrisov Alisher Saugabaevich	
Academic expert	Ramazanov Sholpan Khamzaevna	
Academic expert	Dolmatova Irina Anatolyevna	
Academic expert	Arinova Saule Pasevnoevna	
Academic expert	Karibaeva Dina Orynbasarovna	
Academic expert	Apbasova Saulesh Akhatovna	
Academic expert	Menchisheva Yulia Alexandrovna	
Resident expert	Yerkinov Yerbolat	
Resident expert	Orynbay Aizere Sauletkyzy	

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

Standard	Criteria for evaluation	Number of standards	BS/SI*	Grade		
				Fully compliant	Partially compliant	Does not compliant
1.	MISSION AND OUTCOMES	14	9/5	9/5		
2.	EDUCATIONAL PROGRAMME	22	18/3	18/4	0/1	
3.	ASSESSMENT	9	5/4	4/4	1/0	
4.	RESIDENTS	20	14/6	14/4	0/2	
5.	ACADEMIC STAFF/FACULTY	8	7/1	6/1	1/0	0
6.	EDUCATIONAL RESOURCES	18	11/7	11/7		
7.	PROGRAMME EVALUATION	10	7/3	7/3		
8.	GOVERNANCE AND ADMINISTRATION	11	8/3	8/3		
9.	CONTINUOUS RENEWAL	2	1/1	1/1		
		114	80/34	114		

**Список документов, изученных членами ВЭК в рамках проведения внешней оценки образовательной программы резидентуры**

<b>№</b>	<b>Наименования документов</b>	<b>Количество</b>
1.	«Правила поиска, отбора, найма и аттестации работников в корпоративном фонде «University Medical Center» и его филиале» (Утверждено приложение 42 корпоративного фонда «University Medical Center» от 29 ноября 2021 года)	10
2.	Образовательная программа по специальности «Эндокринология взрослая, детская» составлена на основании Типового учебного плана в соответствии с Государственным стандартом образования Республики Казахстан по специальности «Эндокринология взрослая, детская». Образовательная программа обсуждена коллективом Департаментом педиатрии и Департаментов внутренней медицины КФ «University Medical Center». Образовательная программа одобрена Учебно-методическим советом Протокол № 5 от 27 апреля 2023 года.	10
3.	«Стратегическом плане КФ «University Medical Center» на 2019-2023 годы» (Утвержден решением Попечительского совета Корпоративного фонда «University Medical Center» от 25 мая 2019 года Протокол № 25.05.19.)	48
4.	Протоколы заседание Учебно-методического совета	1
5.	Кодекс деловой этики КФ «University Medical Center» от 26.12.2022 г. № 17	23
6.	Приказ «Об утверждении преподавательского состава и клинических наставников по специальности резидентуры КФ «University Medical Center» от 22.09.2023 г. № 29-ж/к.	42
7.	«Соглашение между врачом-резидентом и руководителем исследовательской работы» (Одобрено УМС Протокол от 30.05.2017 г. №9).	4
8.	«Оценка клинических компетенций» (Приложение № 9 к инструкции по разработке учебно-методической документации и системе оценки учебных достижений врачей-резидентов корпоративного фонда «University Medical Center»)	1
9.	Инструкция по разработке учебно-методической документации и системе оценки учебных достижений врачей-резидентов Корпоративного фонда «University Medical Center» (Утверждено решением Правления Корпоративного фонда «University Medical Center» от 13.05.2021 г. Протокол №2 (с изм. От 15.09.2023 г. №15).	28
10.	«Правила организации образовательного процесса в резидентуре корпоративного фонда «University Medical Center» (Приложение 3 к протоколу Правления корпоративного фонда «University Medical Center» от 29.03.2021 г. №6).	20
11.	Соглашением между врачом-резидентов и руководителем исследовательской работы» (Одобрено Учебно-методическим советом Протокол от 30.05.2017 г. №9)	4
12.	«Соглашение между резидентом-стажером и руководителем диссертации» (Одобрено Учебно-методическим советом Протокол от 30.05.2017 г. №9).	4

13.	«Требования к содержанию, оформлению и защите исследовательской работы по программе резидентуре» (Пересмотрено Учебно-методическим советом Протокол от 28.04.2018 г. № 2)	15
14.	«Положение о Журнальном клубе» (Одобрено Учебно-методическим советом Протокол от 28.04.2018 г. №2)	4
15.	«Чек-лист вводного инструктажа» (Приложение 2 к Руководству по работе с персоналом корпоративного фонда «University Medical Center» и его филиалов)	1
16.	«Правила планирования, организации и реализации научных исследований» (Утверждены решение Правления КФ «УМС» №4 от 04 апреля 2022 года)	1
17.	«Порядок распределения и методика расчета оплаты труда работников КФ «УМС»» (Утвержден решением Правления КФ «УМС» № 15 от 02 июля 2021 г.)	1
18.	«Утверждены ключевые показатели результативности (КПР) клинических академических департаментов на 2021-2023 г.г., которые включают индикаторы образовательной и научной деятельности» (Протокол заседания Правления КФ «УМС» №20 от 07 сентября 2021 года)	1
19.	«Правил приёма в резидентуру Корпоративного Фонда «University Medical Center» (Приложение 4 Утверждено решение Правления Корпоративного Фонда «University Medical Center» от 01.03.2018 г. №15)	8
20.	«Листа привилегий врача-резидента» (Приложение 6 к Руководству по работе с персоналом корпоративного фонда «University Medical Center»)	3
21.	«ИНФОРМИРОВАННОЕ СОГЛАСИЕ о неразглашении конфиденциальной информации о пациентах» (Форма ИНФ-64. Версия1 Утверждённая приказом Директора ННЦМД КФ «УМС» №3 от 22.01.2018 г.)	1
22.	«Положение об Учебно-методическом совете Корпоративного фонда «University Medical Center»» (Приложение 2 Приложение к решению Правления Корпоративного фонда «University Medical Center» от 21.11.2019 г. №26)	6
23.	«ПОЛОЖЕНИЕ о Департаменте образования» (Приложение №7 к протоколу Правления Корпоративного фонда «University Medical Center» от 01.08.2023 г. №11. Утвержден решением Правления Корпоративного фонда «University Medical Center» от 01.08.2023 г. №11)	5
24.	«О создании апелляционной комиссии корпоративного фонда «University Medical Center» по итоговой аттестации выпускников резидентуры от 29.06.2023 г. № 03-к».	2
25.	«О назначении выплат государственной стипендии врачам-резидентам КФ «University Medical Center» от 22.09.2023 г. № 01-м».	4
26.	Приказ «Об утверждении Состава Учебно-методического совета КФ «University Medical Center» от 29.09.2023 г. № 20-н/к)	8
27.	«Положение о Клиническом академическом департаменте внутренней медицины КФ «University Medical Center» (Утверждено приложение 34 к решению Правления КФ «University Medical Center» от 29.11.2021 г. №24)	11

28.	«Кодекс деловой этики корпоративного фонда «University Medical Center». (Приложение 3 к решению Правления КФ «University Medical Center» от 26.12.2022 г. №17.	23
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