

Accreditation Council of the
Eurasian Centre for Accreditation and
Quality Assurance in Education and Health Care
May 31, 2024

**REPORT
OF THE EXTERNAL EXPERT COMMISSION ON THE RESULTS OF THE
EVALUATION OF THE EDUCATIONAL PROGRAM 7R01109 "CARDIAC
SURGERY (ADULTS, CHILDREN)" OF THE RSE "THE MEDICAL CENTRE
HOSPITAL OF THE PRESIDENT'S AFFAIRS ADMINISTRATION OF THE
REPUBLIC OF KAZAKHSTAN" on the REM FOR COMPLIANCE WITH THE
ACCREDITATION STANDARDS OF POSTGRADUATE EDUCATION
PROGRAMS (RESIDENCE SPECIALTIES) OF MEDICAL EDUCATIONAL
ORGANIZATIONS**

period of external expert evaluation: 28.05-31.05.2024

Astana, 2024

CONTENTS

	List of designations and abbreviations	2
1.	Composition of the external expert commission	3
2.	General part of the final report	4
2.1	Presentation of the educational program in the specialty - 7R01109 "Cardiac surgery (adults, children)"	4
2.2	Information on previous accreditation	no
2.3	Brief characteristics of the results of the analysis of the self-assessment report of the educational program in the specialty - 7R01109 "Cardiac surgery (adults, children)" and conclusions on completeness	5
3.	Description of the external expert evaluation and conclusion	6
4.	Analysis for compliance with accreditation standards based on the results of the external evaluation of the educational program in the specialty - 7R01109 "Cardiac surgery (adults, children)"	7
5.	Recommendations for improvement of the educational program in the specialty - 7R01109 "Cardiac surgery (adults, children)"	65
6.	Recommendation to the Accreditation Council for accreditation of the educational program in the specialty - 7R01109 "Cardiac surgery (adults, children)"	66
	Annex 1. Quality profile and criteria for external evaluation and educational program of residency in the specialty of the educational program in the specialty - 7R01109 "Cardiac surgery (adults, children)"	67
	Annex 2. List of documents studied as part of the external expert evaluation	68

Designations and abbreviations

Abbreviation	Designation
RK	Republic of Kazakhstan
MOH RK	Ministry of Health of the Republic of Kazakhstan
MES RK	Ministry of Education and Science of the Republic of Kazakhstan
MSHE RK	Ministry of Science and Higher Education of the Republic of Kazakhstan
DPA RK	Department of Presidential Affairs of the Republic of Kazakhstan
MC PAA RK	The Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan
Hospital	RSE "The Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan" on the right of economic management
SR	self-assessment report
MEO	medical educational organization
DPE	department of professional education
SCES	State Compulsory Educational Standard in the field of Health Care
TC	Typical curriculum
WC	Working curriculum
IEP	individual educational plan
ICTP	individual calendar-thematic plan
EP	educational program
MD	major disciplines
CC	Compulsory component
EC	elective component
CED	catalog of elective disciplines
RW	research work
EMCD	educational and methodological complex of the discipline
IWR	independent work of a resident
ICWRT	independent clinical work under the guidance of a teacher
LO	learning outcomes
GPA	grade point average
MC	midterm control
CIS	control and measuring instruments
IA	interim assessment of students
End-of-course assessment	End-of-course assessment
RAC	republican appeal commission
NCIE	national centre for independent examination
SCC	scientific and clinical council
AC	academic council
FCC	final certification commission
SOP	standard operating procedure
JD	job description
Academic staff	Academic staff (mentors)
AT	advanced training
GVFMC	guaranteed volume of free medical care
CSHI	compulsory social health insurance
LEB	local executive body
mass media	mass media

1. Composition of the External Expert Commission

In accordance with the order of the ECAQA No. 18 dated 17.05.2024, the External Expert Commission (hereinafter referred to as the EEC) was formed to conduct an external evaluation of the educational program of residency in the specialty of the educational program in the specialty - 7R01109 "Cardiac surgery (adults, children)" in the period from 28.05.2024 to 31.05.2024 in the following composition:

№	Status in the EEC	Full name	Academic degree/title, position, place of work/place of study, year, specialty
1	Chairman	Yermukhanova Lyudmila Sergeevna	Candidate of Medical Sciences, Associate Professor, Head of the Department of "Public Health and Healthcare" of the NJSC "West Kazakhstan Medical University named after Marat Ospanov", Chairman of the "Public Healthcare" Committee at the State Unitary Enterprise
2	International Expert	Uryasev Oleg Mikhailovich	Doctor of Medical Sciences, Professor, Head of the Department of Faculty Therapy named after Professor V.Ya. Garmash, Vice-Rector for Academic Affairs of the Federal State Budgetary Educational Institution of Higher Education "Ryazan State Medical University named after Academician I.P. Pavlov" of the Ministry of Healthcare of the Russian Federation.
3	Academic Expert	Kasenova Saule Laikovna	Doctor of Medical Sciences, Professor of the Department of Residency of the Department of Postgraduate Education of the JSC "Research Institute of Cardiology and Internal Medicine"
4	Academic Expert	Yesenkulova Saule Askerovna	Doctor of Medical Sciences, Professor of the Center for Postgraduate Education of the JSC "Kazakh Research Institute of Oncology and Radiology" Member of the Association of Oncologists of the Republic of Kazakhstan
5	Academic Expert	Smailova Altynay Nagyzkhanovna	Candidate of Medical Sciences, Director of the Strategy Department of the Corporate Fund "University Medical

			Center” of Nazarbayev University.
6	Academic Expert	Salimbaeva Damilya Nurgazievna	candidate of medical sciences, head of the department of strategic development and science of JSC "Scientific center of obstetrics, gynecology and perinatology"
7	Employer Expert	Zhukubaeva Almira Asetkyzy	Master of pedagogy and psychology, the highest medical category in emergency care, therapy, the first medical category in public health. Head of the education department of LLP "National Scientific Oncology Center"
8	Student Expert	Nurgaliev Arslan Ardakovich	second-year resident in the specialty "Cardiology for Adults, children" of NJSC "Astana Medical University"

The EEC report includes a description of the results and the conclusion of the external evaluation of the educational program in the specialty - 7R01109 "Cardiac surgery (adults, children)" for compliance with the Accreditation Standards of postgraduate education programs (residency specialty) of medical educational organizations and conclusions (hereinafter - Accreditation Standards), recommendations of the EEC for further improvement of approaches and conditions for the implementation of the above-mentioned educational program and recommendations for the ECAQA Accreditation Council for Accreditation.

2. General part of the final report

2.1 Presentation of the residency educational program in the specialty 7R01109 "Cardiac surgery (adults, children)"

Name of the organization, legal form of ownership, BIN	Republican State Enterprise "The Medical Center Hospital of the President's Affairs Administration of the Republic of Kazakhstan" on the right of economic management
Management body	The Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan (MC PAA RK) Department of Presidential Affairs of the Republic of Kazakhstan (DPA RK)
Full name of the first director	Albayev Rustam Kuanyshbekovich Director Candidate of Medical Sciences, Master of Business Administration in Medicine
Location and contact details	Organization address: Kazakhstan 010000 Astana, Yesil district, st. E-495, No. 2 8 (7172) 70-80-11, 8 (7172) 70-79-52 kense@bmc.mcudp.kz https://bmcudp.kz/ru/

State license for educational activities in residency (date, number)	№KZ87LAA00017356 7R011 08.11.2019
Information on branches, subsidiaries (if any)	no
Year of commencement of the accredited educational program (EP)	2024
Duration of study	4 years
Total number of graduates since the beginning of the EP	no
Number of residents in the EP since the beginning of the current academic year	no
Full-time teachers/part-time workers involved in the implementation of the EP	Total number of teachers – 12, including full-time - 12, part-time - 1. Proportion of degrees, % - 41.7 Categorization, % - 100
Website Instagram Facebook with active pages	https://bmcudp.kz/ru/ bmcudp_rk

The initial accreditation of the educational program in the specialty 7R01109 "Cardiac surgery (adults, children)" has been carried out.

2.2 Information about the previous accreditation

Until now, the accreditation of the educational program of the residency in the specialty 7R01109 "Cardiac surgery (adults, children)" has not been carried out.

2.3 Brief description of the results of the analysis of the self-assessment report of the educational residency program in the specialty 7R01109 "Cardiac surgery (adults, children)" and conclusions on completeness

The report on the self-assessment of the educational residency program in the specialty 7R01109 "Cardiac surgery (adults, children)" (hereinafter referred to as the report) is presented on 68 pages of the main text, appendices on 4 pages, electronic versions of documents located at the link <https://drive.google.com/drive/folders/1otxIuwXL6k3r8ezNRdih-g1QoAWfV1D?usp=sharing>.

The report is characterized by the completeness of answers to all 9 main accreditation standards and criteria, structuring taking into account the recommendations of the Guidelines for conducting self-assessment of the educational program provided to the educational organization by the accreditation centre - ECAQA, as well as the internal unity of information. The report is accompanied by a cover letter signed by the director Albaev R.K., who confirms the reliability of the quantitative information and data included in the self-assessment report. The report contains a list of 8 members of the internal self-assessment commission indicating the responsibility of each employee, information about the representative of the organization responsible for conducting the self-assessment of the educational program - Umarova Makpal Aldibekovna, head of the accreditation and monitoring department of the Non-profit institution "Eurasian Centre for Accreditation and Quality Assurance in Education and Health Care". Self-assessment of the educational program 7R01109 "Cardiac Surgery (Adults, Children)" was conducted on the basis of the order of the director of the RSE "The Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan" on the Right of Economic

Management No. 224 dated 05.04.2024 "On the self-assessment of the educational program "Cardiac Surgery (Adults, Children)". All standards provide the actual practice of the RSE "The Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan" on the Right of Economic Management for the training of residents in the specialty 7R01109 "Cardiac Surgery (Adults, Children)", taking into account the start of admission of students in 2024, substantiated 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 in terms of the number of residents, teachers, administration, information on selection and admission, training results, results of knowledge and skills assessment, the material and technical base of the university and clinical sites, contractual obligations with partners (universities, associations, bases), financial information, plans for development and improvement, etc.

The report is submitted to the ECAQA in its completed form, with data adjustments according to the above recommendations, written in competent language, the wording for each standard is clear, understandable and described in accordance with the criteria of the standards, tables and diagrams, have continuous numbering.

3. Description of the external expert evaluation

The external expert work within the framework of the evaluation of the educational program 7R01109 "Cardiac surgery (adults, children)" was organized in accordance with the Guidelines for conducting external evaluations of educational organizations and educational programs of the ECAQA / Dates of the visit to the organization: May 28-31, 2024. The sequence of the visit over 3 days is presented in detail in Annex 3 to this report.

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

- interviews with management and administrative staff - 10 people;
- interviews with residents - no;
- studying the website bmcudp.kz;
- interviewing 12 employees, 4 teachers, mentors;
- questionnaires of teachers and residents - 5 and 0, respectively;
- observation of resident training: attendance of practical classes, lectures - no.
- review of resources in the context of fulfilling accreditation standards: 2 practice/clinical engagement bases were visited, including the Children's Cardiac Surgery Centre of JSC "National Scientific Medical Centre", where training is planned for 1 educational program with the participation of 5 full-time teachers / part-time workers;
- study of educational and methodological documents in the amount of 5 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 staff of the accredited organization ensured the presence of all persons specified in the visit program and in the lists of interview sites and conversations (Table 1).

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

№	Position	Quantity
1	Ydyrysheva A.K. - cardiac surgeon, program manager	5
2	Toybaev Alibek Armanovich - head of surgical department No. 5	1
3	Shanazarov Nasrulla Abdullaevich - deputy director of the MCH for strategic development and education	5
4	Sultanbekova Bibigul Malgazhdarovna - head of the quality management and safety service	1
5	Avdeev Andrey Stanislavovich - Deputy of Science Department	2

6	Yerzhanova Farida Nurmukhamedovna - head of the professional education department	5
7	Temirkulova Maksat Alibekovich - interventional cardiac surgeon	1

On the last day of the visit to the organization, a meeting of the EEC members was held to discuss the results of the external evaluation. A final discussion of the results of the external evaluation of the educational program, examination of documents, interview results, and questionnaires was held. The EEC members began drafting the final report of the EEC. Generalizations of the external evaluation results were made. The experts individually filled out the "Quality Profile and Criteria for External Evaluation of the Educational Program 7R01109 "Cardiac Surgery (Adults, Children)" for compliance with the ECAQA Accreditation Standards." The EEC members made no comments. Recommendations for improvement of the educational program were discussed and the chairperson, Yermukhanova Lyudmila Sergeevna, held a final open vote on the recommendations for the ECAQA Accreditation Council.

Comfortable conditions were created for the work of the EEC, access to all necessary information and material resources was organized. The Commission notes the high level of the University's corporate culture, the high degree of openness of the team in providing information to the members of the EEC.

While conducting a survey of residents, 100% rated the work of the External Expert Commission on Accreditation as positive 100%, 0% as satisfactory. The majority of respondents (100%) believe that it is necessary to conduct accreditation of the educational organization or educational programs.

According to 100% of teachers, the survey conducted by the ECAQA is useful for developing recommendations for improving key areas of activity of the accredited educational organization.

At the end of the visit, the Chairman of the EEC announced recommendations for the management and employees of the educational organization based on the results of the external evaluation as part of the specialized accreditation.

4. Analysis of compliance with accreditation standards based on the results of an external evaluation of the residency educational program in the specialty 7R01109 "Cardiac surgery (adults, children)"

Below is evidence of implementation and compliance with standards and substandards, as well as deficiencies identified during the external evaluation, a conclusion on compliance with accreditation standards and Recommendations for improving the quality of the educational program.

Standard 1: MISSION AND FINAL OUTCOMES

1.1 Statement of mission and final outcomes

The residency program 7R01109 "Cardiac surgery (adults, children)" was approved at a meeting of the Scientific and Clinical Council (SCC) of the Hospital (minutes No. 2 dated April 27, 2023). The mission of the EP is aimed at training highly qualified independent specialists in the field of cardiac surgery with the integration of knowledge and fundamental principles of cardiac surgery into daily clinical practice, taking into account the latest global achievements in the field of cardiac surgery, creating conditions for supporting resident physicians in research endeavours and instilling the necessary elements of success for a career in the field of cardiothoracic surgery, including objectivity, integrity, self-motivation and a sense of responsibility, which was determined on the basis of an analysis of the needs of society and clinical practice in the field of cardiac surgery, and was discussed during the development process by members of the working group, which included both Hospital employees and representatives of practical healthcare.

The mission of the EP is communicated to all interested parties by posting it on the Department's information boards, Instagram pages, and the official website of the Hospital <https://bmcudp.kz/ru/science-and-education/otdel-nauki-i-professionalnogo-obrazovaniya/npr->

<license/postupayushchim/obrazovatelnye-programmy/obrazovatelnye-programmy.html>

As part of the career guidance work of the Admissions Committee, information and advertising products are published in the form of booklets with the necessary information.

Information about the mission of the EP is provided to partners from near and far abroad for the implementation of joint educational activities; memorandums and agreements on joint master classes and academic mobility of residents are concluded.

The mission of the EP is defined in the educational program based on the analysis of public health needs in the field of cardiac surgery and was discussed at the project stage during the development process by working groups, which included Hospital employees and representatives of practical healthcare.

In order to ensure residents' satisfaction with the training, meetings will be held with the Deputy Director for Strategic Development, Science and Education, where issues of the quality of the EP content, quality of teaching, quality of the organization of the educational process, quality of teaching technologies, quality of forms of control of students' knowledge, learning conditions, material and technical, methodological, information support of the educational process, nutrition conditions, etc. will be directly discussed.

The Department's specialists will monitor the employment of residency graduates of EP 7R01109 "Cardiac Surgery (Adults, Children)" and evaluate their competencies by employers. Good theoretical and practical training of future residency graduates and their demand in practical healthcare will allow employing all those who wish in the specialty: conduct preliminary distribution of residents with the participation of employers before completing the training. EP 7R01109 "Cardiac Surgery (Adults, Children)" contains both theoretical and practical components that will strengthen the clinical training of resident physicians. Resident physicians will master practical skills in accordance with the learning outcomes when studying the disciplines of the mandatory component and the elective component. Elective disciplines provide training for a clinical physician-cardiac surgeon who is competent and capable of carrying out appropriate and relevant clinical practice in the field of cardiac surgery, capable of working at a high professional level, capable of working independently and autonomously, as well as in a team, where necessary, ready for lifelong learning and participation in continuous medical education and continuous professional development. EP 7R01109 "Cardiac Surgery (Adults, Children)" is designed to provide a holistic systemic understanding of the processes of clinical activity and improvement of practical skills in establishing a diagnosis and drawing up a treatment plan in compliance with clinical protocols for cardiac surgery. EP 7R01109 "Cardiac Surgery (Adult, children)" pursues certain professional goals. The objects of professional activity are patients with diseases of the cardiovascular system. The residency EP is designed to continuously improve and maintain high quality of services and patient safety in the Hospital. Safety in relation to patients and their health is maintained based on the resident physician's ability to assess risks and use the most effective methods of diagnosis and treatment of patients to ensure a high level of quality of medical care. Resident physicians will carry out treatment activities in accordance with emergency treatment protocols, observing the rules of ethics and deontology in relationships with patients under the supervision of a mentor, which ensures patient safety. In accordance with Article 48 "Protection of the health of students, pupils" of the Law of the Republic of Kazakhstan "On Education" and Section 4 "Safety and Labour Protection" of the Labour Code of the Republic of Kazakhstan, the Hospital undertakes to ensure healthy and safe conditions for training residents upon concluding an agreement on the provision of educational services. Before the training begins, residents will undergo various types of safety training: infectious, fire, radiation, anti-terrorism, the activities for which are carried out in accordance with generally accepted norms and standards of safety and labour protection, in accordance with the internal procedures of the Hospital. Residents will regularly undergo medical examinations and scheduled vaccinations. The beginning and end of the resident's daily work is regulated depending on the operating mode of the supervising department of the Hospital and the individual work schedule. In the departments of the Hospital planning to implement EP 7R01109 "Cardiac surgery (adults, children)" for resident doctors, all the necessary working conditions for high-quality training have been created, taking into ac-

count the personal needs of resident doctors, including in relation to health. The temperature regime, lighting, equipment of the training rooms of resident doctors comply with sanitary and regulatory rules. There are also conditions for providing first medical aid and conditions for independent work of resident doctors. For the IWR under the supervision of teachers (mentors) and rest during breaks, there is a separate classroom and locker room. On the basis of the Hospital, resident doctors have the opportunity to have hot meals, rest in their free time, work with literature. The department has organized the process of attaching resident doctors to the National Educational Database NEDB to ensure the availability of medical services within the framework of the Compulsory Social Health Insurance.

Resident doctors are also given the opportunity to take elective courses focused on a specific area of cardiac surgery.

EP 7R01109 "Cardiac Surgery (Adults, Children)" includes the following elective courses: "Clinical Pharmacology of Heart Disease Treatments", "Issues of Radiation and Functional Diagnostics of Heart Diseases".

In the residency of the Hospital, training is carried out using updated clinical protocols, treatment recommendations, own and borrowed implementations in clinical practice.

Residents have the opportunity to use Internet resources to access full-text articles and literary sources of databases. In 2024, the Hospital launched a pilot project to provide corporate access to ClinicalKey online resources. This is an extensive clinical source of information based on the principles of evidence-based medicine. Users of these resources (residents and medical workers) receive verified and regularly updated material in the professional field.

Resident doctors of EP 7R01109 "Cardiac Surgery (Adults, Children)" will get acquainted with the basics of scientific research, participate in scientific research, publish, and thereby improve their professional level.

The implementation of EP 7R01109 "Cardiac Surgery (Adults, Children)" is achieved by creating, maintaining and continuously improving conditions that guarantee the availability, safety and high quality of medical services provided to the population, as well as the introduction of scientific achievements and innovative technologies into the educational process. The Hospital hosts Republican scientific and practical conferences with international participation. Qualified doctors from Astana and the regions of the Republic of Kazakhstan, near and far abroad take part in the work of scientific forums. Residents are required to participate in conferences and educational seminars, symposia, trainings, master classes.

In order to assist residents in becoming active participants and solving social determinants of health, the Department involves them in participating in charity events, resident doctors are volunteers of the National Volunteer Network of the Red Crescent Society of the Republic of Kazakhstan, the Intensive Rehabilitation Centre for Assistance to Children with Down Syndrome, the "Shugyla" Public Foundation, participate in Volunteering on immunization in the WHO country office together with the National Centre for Public Health, etc.

1.2 Professionalism and professional autonomy

In the process of mastering the EP 7R01109 "Cardiac surgery (adults, children)", the resident physician will acquire practical skills within the framework of professional competencies that form the ability to effectively carry out their professional activities in various conditions, a high level of responsibility for decisions made, the ability to self-development, self-improvement, opens up broader opportunities for professional growth and development.

The Hospital has developed the SOP "Algorithm for organizing postgraduate education in residency based on the MCH PAA RK", CEP / SQE ON and PE-8.1, which reflects all stages and components of the educational process, the structures and resources involved. <https://drive.google.com/drive/folders/1otxIluwXL6k3r8ezNRdih-g1QoAWfV1D?usp=sharing>

In accordance with the order of the Ministry of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152 "On approval of the Rules for organizing the educational process using credit technology for training in higher and (or) postgraduate education organizations" <https://adilet.zan.kz/rus/docs/V1100006976> and the order of the Ministry of Health of the Republic of

Kazakhstan dated July 4, 2022 No. MOH RK-63 "On approval of state mandatory standards for levels of education in the field of health care" <https://adilet.zan.kz/rus/docs/V2200028716> The hospital independently develops educational programs in accordance with the requirements of the standard and TC for residency specialties, based on which the curricula are developed (the WC, the IEP of the resident physician, syllabuses), the form, structure, procedure for development and approval are determined by the Hospital independently. The internal document regulating the educational activities of the Hospital is the Academic Policy of the Hospital. <https://drive.google.com/drive/folders/1otxIIuwXL6k3r8ezNRdih-g1QoAWfV1D?usp=sharing>

The procedure for the selection and admission of resident physicians is regulated by the order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600 "On approval of the Model Rules for Admission to Training in Educational Organizations Implementing Educational Programs of Higher and Postgraduate Education" <https://adilet.zan.kz/rus/docs/V1800017650> and the internal regulatory document Rules for Admission to the Residency of the Hospital, which determine the procedure for admission to the residency. The hospital has autonomy in determining the content and form of the entrance examination in the specialty, choosing the persons included in the examination and appeal committee, while observing the requirements for the number of examiners and compliance with the profile of the residency specialty.

Personnel autonomy follows from the Opportunities of the internal and external search for candidates for a vacant position. Internal search provides the ability to use a personnel reserve, which allows the organization too quickly and easily select candidates for newly created and vacant positions to be filled, effectively organize the training and internship of specialists included in the reserve, and rationally use them in various areas and levels in the management system.

The Hospital staff is involved in training resident doctors in accordance with the order of the Ministry of Higher Education of the Republic of Kazakhstan dated January 5, 2024 No. 4 "On approval of qualification requirements for the educational activities of organizations providing higher and (or) postgraduate education, and the list of documents confirming compliance with them." <https://adilet.zan.kz/rus/docs/V2400033892>

Personal employment, reimbursement of expenses incurred at the expense of budgetary funds, granting the right to independent employment, exemption from the obligation or termination of the obligation to work off graduates of the residency who studied on the basis of the state educational order will be determined in accordance with the order of the Ministry of Education and Science of the Republic of Kazakhstan dated August 11, 2023 No. 403 "On approval of the Rules for sending a specialist to work, reimbursement of expenses incurred at the expense of budgetary funds, granting the right to independent employment, exemption from the obligation or termination of the obligation to work off citizens of the Republic of Kazakhstan who studied on the basis of the state educational order." <https://adilet.zan.kz/rus/docs/V2300033291/info> The hospital for the implementation of EP 7R01109 "Cardiac surgery (adults, children)", is staffed by academic staff with clinical experience and academic titles, has sufficient resources for training resident doctors.

The relationship between the Hospital and residents is regulated by the "Regulations on the resident", "Academic policy" and an agreement for the provision of educational services, which is concluded with each student upon admission in the residency of the Hospital.

These internal documents cover the rights and responsibilities of residents, including the right to freely express their own views and beliefs.

A resident doctor has the right to choose from the catalogue of new elective disciplines the disciplines he needs, thereby he participates in decision-making in professional training and development of skills regarding himself. A resident physician may be involved in the evaluation process of the educational program by expressing his/her opinion and wishes at the end of the course of study, mastering a specific discipline, or by anonymously completing a questionnaire to identify opinions and take into account comments and suggestions as direct consumers of the educational program.

A resident physician has the right to academic mobility, on-site training in residency, and publications in the quarterly journal of the Hospital "Bulletin of the MCH PAA RK".

1.3 Final learning outcomes

EP 7R01109 "Cardiac surgery (adults, children)" provides for the final learning outcomes. A resident physician acquires professional competencies and upon completion is able to:

- manage patients according to treatment and examination standards, taking into account the clinical symptoms of cardiovascular diseases in adults and children, diagnostic and prevention results, and the specifics of managing patients with artificial heart valves and pacemakers; know the issues of temporary and permanent disability after heart surgery, temporary rehabilitation of cardiac surgery patients; apply medical supervision in the postoperative period, prescribing physiotherapy, exercise therapy;

- demonstrate appropriate communication skills, observing the principles of medical ethics when communicating with patients, interacting with colleagues, employees of social services; be ready to change social, economic, professional roles, geographic and social mobility; perceive new ideas, adapt to changes in the socio-economic development of society, the healthcare system; conduct analysis and planning of their professional activities; help in solving patient problems related to health and care;

- implement advanced medical technologies, international quality and safety standards within the framework of international accreditation JCI (Joint Commission International) and national accreditation in their work; follow documented procedures in the performance of their job responsibilities; work in accordance with the approved rules and programs, clinic guidelines on quality and safety; use equipment of operating rooms and intensive care units, surgical instruments used during examination and various surgical and cardiac surgeries in accordance with safety regulations;

- provide effective and qualified medical care to the population, taking into account physical, psychological, social and cultural factors; apply management principles to the organization and implementation of medical care to the population;

- participate in research work taking into account the specifics, capabilities of the material and technical base of the clinic, apply scientific achievements of modern medicine in educational practice and in their work, introduce modern treatment and diagnostic technologies in their professional activities, present clinical cases at medical conferences;

- undergo continuous training based on international research materials published in periodicals and on websites, participate in scientific discussions, conferences, symposia with reports, publish the results of practical and scientific work in scientific publications (journals, guidelines, conference proceedings).

Upon completion of training, the resident must have the skills to provide high-quality, evidence-based diagnostic, therapeutic, accompanying, and rehabilitative surgical care to patients with cardiovascular diseases.

The document that allows orienting each member of the team toward achieving common goals, concentrating their initiative, enterprise, streamlining their business communication and ensuring a favourable moral and psychological climate is the "Code of Honour of the Academic Staff and Resident Doctor of the Hospital", approved by Order No. 250 dated July 18, 2019. The Code promotes the formation and development of a free-thinking creative personality, capable of independently solving ideological and professional problems. The Code defines the basic rules of corporate culture and is the establishment of a set of norms of behaviour of the Academic staff, students and employees of the Department, and also determines the attitude of resident doctors and doctors to patients.

In order to inform the medical community, the results of training EP 7R01109 "Cardiac surgery (adults, children) are posted in the Register of the Bologna Process Centre of the MSHE of the RK https://epvo.kz/#/register/education_program/application/47673 and on the Hospital website. <https://bmcudp.kz/ru/education/npr-license/postupayushchim/obrazovatelnye-programmy/obrazovatelnye-programmy.html>

Continuity between the final learning outcomes of the basic medical education programs and EP 7R01109 "Cardiac Surgery (Adults, Children)" will be ensured by defining prerequisites both at the level of the entire specialty and at the level of a module and a separate discipline. Thus, when mastering the disciplines of EP 7R01109 "Cardiac Surgery (Adults, Children)", the following prerequisites

will be taken into account - basic medical education, internship - general medical practice. At the same time, attention is paid to the specification of the final learning outcomes formed in the course of mastering the prerequisites and the disciplines of residency required for training.

1.4 Participation in formulating the mission and final results

Stakeholders in the implementation of the EP are resident physicians, Hospital employees, authorized governing bodies in healthcare and education, healthcare organizations, potential employers, professional medical associations, and the public.

Representatives of the main stakeholders are involved in formulating the mission of EP 7R01109 "Cardiac Surgery (Adults, Children)" by discussing the draft mission of the EP in the department and the SCC of the Hospital.

Other (external) stakeholders involved in formulating the mission and expected results include: potential employers, National Public and Professional Associations, healthcare organizations.

Structure of stakeholders and analysis of their participation in formulating the mission and final outcomes of EP 7R01109 "Cardiac Surgery (Adults, Children).

Categories	Representatives / Contacts	Mission / Competencies	Capability	Type of Contribution and/or Influence	Barriers
Key stakeholders (internal)					
Students					
Teachers	Abdrakhmanov A.S. Dzholdasbekova A.U. Ydyrysheva A.K.	+	+	Development of mission and competencies	-
Clinical teachers attracted from clinical sites	Toybaev A.A.	+	+	Participation in the development of mission and competencies	-
Administrative staff	Education Department	+	+	Monitoring	-
Advisory bodies of the International Public Organization	SCC, Academic Council	+	+	Review and approval	-
Graduates					No graduation
Other stakeholders (external)					
Employers (including potential)	Smolensky A.V. (MCH № 2)	+	+	Review	-
National public and professional associations	NSMC	+	+	Consulting in the process of developing the mission	-
Healthcare authorities					
Society/civil society					
Local government bodies	-	-	-	-	-
Non-governmental organizations (NGOs)	-	-	-	-	-
National regulatory/authorized bodies					
National certification and licensing bodies in the field of health care	National Centre for Independent Examination	+	+	Organization and conduct of independent examination of graduates	
Ministry of Health	DSHR	+	+	Placement of state orders	

Ministry of Education	Register of EPs of the Bologna Process	-	-	Expertise and inclusion in the Register	
Partners within the country and abroad	NSMC			Clinical base	-
International organizations and foundations, NGOs	-	-	-	-	-

In order to improve all areas of the Hospital's activities, including its mission, the Department has implemented feedback monitoring. Feedback results are taken into account when planning improvement work. In general, the use of feedback contributes to a better understanding of current needs and is systemic in nature when making changes to the educational program. An example of the effective use of feedback is a survey of employers (future students) evaluating the level of satisfaction with educational programs, a survey of resident doctors after completing cycles.

Obtaining an external evaluation of the EP's mission is carried out by involving members of independent professional associations, the administration of clinical sites in reviewing educational programs; while monitoring satisfaction with the work of resident doctors at clinical sites.

Conclusion on standard 1:

EEC conclusions on criteria. Compliant out of 14 standards: fully - 14.

Standard 2: EDUCATIONAL PROGRAMME

EP 7R01109 "Cardiac Surgery (Adults, Children)" has been developed and will be implemented taking into account the needs of the medical services market for the population of the Republic of Kazakhstan in medical personnel of the corresponding profile <https://drive.google.com/drive/folders/1otxIuwXL6k3r8ezNRdih-g1QoAWfV1D?usp=sharing>

While developing EP 7R01109 "Cardiac Surgery (Adults, Children)", the developers defined the expected learning outcomes as the training of highly qualified independent specialists in the field of cardiac surgery with the integration of knowledge and fundamental principles of cardiac surgery into daily clinical practice, taking into account the latest global achievements in the field of cardiac surgery, creating conditions for supporting resident doctors in research endeavours and instilling the necessary elements of success for a career in the field of cardiothoracic surgery, including objectivity, integrity, self-motivation and a sense of responsibility. Mastering the expected learning outcomes will serve as a reason for obtaining an official certificate of completion of residency of the state standard with the assignment of the qualification "Adult, children's cardiac surgeon", which will be recognized at the national and international levels. The goal of training in the residency of OP 7R01109 "Cardiac surgery (adults, children)" is to prepare and provide the healthcare industry with qualified cardiac surgeons.

The final training outcomes of resident physicians of EP 7R01109 "Cardiac surgery (adults, children)" are aimed at mastering general key competencies and professional competencies and are spelled out in the EP. The learning outcomes are formulated both for the entire EP and for each discipline. To achieve them, resident doctors acquire theoretical knowledge and practical skills in the disciplines of the compulsory component (CC) and the disciplines of the elective component (EC), which are developed taking into account the specifics and focus, strengths of the teachers/mentors of cardiologists, cardiac surgeons of the Hospital.

While drawing up the training trajectory, the sequence of passing modules/disciplines was observed, the content of which is aimed at achieving knowledge, skills and abilities, providing a step-by-step approach to their study.

The hospital plans to implement EP 7R01109 "Cardiac surgery (adults, children)" from the 2024-2025 academic year in accordance with the requirements of educational standards of the Republic of Kazakhstan:

- 1) The Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 No. 319 - III;
- 2) Order of the Ministry of Health of the Republic of Kazakhstan dated July 4, 2022 No. RK MOH-63 "On approval of state mandatory standards for levels of education in the field of healthcare";
- 3) Order of the Ministry of Health of the Republic of Kazakhstan dated December 15, 2020 No. RK MOH-270/2020 "On approval of the rules for placing a state order, admission to training and training of medical personnel in residency";
- 4) Order of the Ministry of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152 "On approval of the Rules for organizing the educational process according to credit technology of training in organizations of higher and (or) postgraduate education";
- 5) Order of the Ministry of Health of the Republic of Kazakhstan dated May 25, 2021 No. RK MOH - 43 "On approval of the list of medical specialties of residency programs";
- 6) Order of the Ministry of Health of the Republic of Kazakhstan dated 09.01.2023 No. 4 "On approval of standard curricula for medical and pharmaceutical specialties".

The procedure and organization of training resident doctors in the departments of the Hospital are determined by the internal regulatory documents "Academic Policy of the MCH PAA RK", "Regulations on the residency of the MCH PAA RK", SOP "Algorithm for organizing postgraduate education in residency based on the MCH PAA RK". The characteristics of EP 7R01109 "Cardiac surgery (adults, children)" are presented in **Table 1** of the Annex to this report.

EP 7R01109 "Cardiac Surgery (Adults, Children)" was approved at the meeting of the SCC of the Hospital, protocol No. 2 dated April 27, 2023.

The content corresponds to the standards of education in residency, changes can be allowed only within the university component. All procedures for approving the EP are carried out in accordance with the regulatory documents of authorized bodies and internal regulatory documents of the Hospital.

EP 7R01109 "Cardiac Surgery (Adults, Children)" is included in the register of the European Higher Education Area (EHEA) of the Ministry of Higher Education of the Republic of Kazakhstan and complies with international requirements, namely level 7 of the national qualifications framework in medical education and the Qualifications Framework in the European Higher Education Area.

In accordance with the classifier, the specialty is legitimate and the graduate, upon completion of the educational program, is issued a certificate of completion of residency of the state standard with the assignment of the qualification "The doctor is a cardiac surgeon for adults, children", an annex to the certificate indicating the list of studied disciplines with grades, the volume of academic hours.

The National Framework of Qualifications for Higher Education of the Republic of Kazakhstan is compatible and comparable with the framework of qualifications of the European Higher Education Area, which is necessary to ensure recognition of the qualifications of graduates of Kazakhstani higher education institutions and to increase their competitiveness both within the country and abroad.

Practice-oriented training in residency involves the personal participation of the resident physician in the provision of medical care and responsibility for the patient, but under the guidance of a mentor. In the Hospital, training of resident physicians includes classroom work, ICWRT, and IWS, which are aimed at mastering professional competencies. Most of the academic workload falls on ICWRT, which implies personal participation of the resident physician in patient supervision, participation in consultations, board meetings, general rounds, clinical reviews under the guidance of clinical mentors. IWR provides for independent study of scientific publications on topical issues, literary sources. The practice-oriented nature of the educational process is expressed in the fact that resident physicians have full access to examinations of patients with various pathologies under the guidance of experienced mentors. EP 7R01109 "Cardiac Surgery (Adults, Children)" ensures the integration of practice and theory includes the content, sequence of training of a resident physician with the definition of goals and learning outcomes based on the performance of tasks and the provision of medical care to the population. Integration of training and provision of health services implies provision of health care by a resident physician. Training is based on practice with the involvement of resident physicians in personal participation in the provision of health services and responsibility for activities in

providing care to patients under the guidance of a mentor in the departments implementing the program.

Clinical practice with the personal participation of resident physicians is the main method of training in the provision of health care to the population, taking into account physical, psychological, social factors, and responsibility for the patient; solving patient problems and making decisions based on the principles of active medicine; being able to apply scientific achievements of medicine; demonstrating appropriate communication skills, observing the principles of medical ethics when communicating with the population, interacting with medical personnel of related specialties; applying management principles to the organization and implementation of health care to the population; possessing teamwork skills and leadership qualities; being able to teach others and improve their knowledge and skills throughout their professional career.

The principles of quality in the Hospital are reflected in the Regulation on the internal system of evaluating the quality of education and determine the procedure for regulating and ensuring the improvement of the quality of education, the development of a culture of continuous quality improvement in accordance with the strategy of the Hospital and the mission of the Department.

The formation of commitment to the principles of academic honesty is reflected in the Code of Honour of the teacher / mentor and the Code of Honour of the resident physician of the Hospital, approved by the order of the acting director of the Hospital No. 250 dated July 18, 2019.

In the Hospital, in order to ensure the principles of academic honesty in accordance with paragraph 37 of Annex 5 of the order of the Ministry of Education and Science of the Republic of Kazakhstan No. 595 dated October 30, 2018 "On approval of the Model rules for the activities of educational organizations of the corresponding types", specialists of the science department check scientific works, publications of students for elements of plagiarism. On the public procurement portal, the Hospital signed an agreement with LLP "PLAGIAT.PL" to provide access to the Antiplagiat program No. 1906 dated 02.08.2023. The check is carried out on the basis of a memo from the head of the EP, teacher or head of the Department. The system provides information on the originality of the text indicating the percentage of originality of the text; the examiner issues a report with a certificate.

Training of resident physicians of the EP 7R01109 "Cardiac Surgery (Adults, Children)" will be carried out on the basis of the integration of theory and clinical practice, according to the schedule of classes and other educational events, with the involvement of resident physicians in personal participation in the provision of medical services and responsibility for activities to provide assistance to patients under the supervision of a mentor. In the process of training, an increasing degree of independent responsibility of the resident physician is ensured as they acquire skills, knowledge and experience, according to the approved competencies for the years of study. The resident physician has the opportunity to receive consultations on training from teachers and mentors of the Hospital, and clinical mentors of external clinical bases provide support to resident physicians during rotation in the process of mastering the OP. An increase in the degree of independent responsibility of resident physicians occurs as their skills, knowledge and experience grow. Resident physicians of EP 7R01109 "Cardiac Surgery (Adults, Children)" will perform all manipulations under the supervision of a clinical mentor.

To develop the practical skills of the resident within the framework of professional competencies, the resident works during the cycle under the guidance of a clinical mentor at the residency bases with regular assessment and feedback. The mentor is appointed from among qualified specialists in practical healthcare with the first or highest qualification category, experience in the relevant specialty of at least 5 years. The volume of independent clinical work under the guidance of a clinical mentor is 70% of the volume of classroom work for each discipline. Upon completion of the cycle, the student is assessed in the manner established by the Hospital.

The set of norms and rules governing the mentoring of residents is an internal document of the Hospital, approved by the order of the director "Regulations on the clinical mentor". <https://drive.google.com/drive/folders/1otxIIuwXL6k3r8ezNRdih-g1QoAWfV1D?usp=sharing>

Clinical mentors are executors of the contract with the Hospital and are directly subordinate to the head of the department of the clinical base of the Hospital, who is responsible and controls the per-

formance of the functional duties by the clinical mentor. In their activities, the clinical mentor is guided by:

- The Charter of the Hospital;
- Internal labour regulations;
- Orders and instructions of the Hospital management;
- The Regulation on residency and the Academic Policy of the Hospital;
- The code of honour of the Academic staff of the Hospital;
- This Regulation.

The training and education of the resident physician of EP 7R01109 "Cardiac surgery (adults, children)" will be carried out with regular assessment and feedback. The evaluation of the educational achievements of resident physicians in the Hospital is carried out using criteria and procedures developed in accordance with the set goals and objectives for the implementation of the EP. The assessment of the resident physician is carried out by means of an oral survey, solving situational problems, testing, and interviews. Feedback is provided by the Department's specialists by means of a questionnaire on satisfaction with the learning process through the AIS "Platonus". The questionnaire forms are approved at a meeting of the Scientific and Consulting Council, and are reviewed and updated at meetings of the Academic Council. The questionnaire is conducted twice a year (at the end of the first half of the year and at the end of the second half of the year). The analysis of the questionnaire is attached. <https://drive.google.com/drive/folders/1otxIUwXL6k3r8ezNRdih-g1QoAWfV1D?usp=sharing>

For those interested in entering the residency, the Hospital website contains information on the content of the residency EP implemented in the Hospital. <https://bmcudp.kz/ru/science-and-education/otdel-nauki-i-professionalnogo-obrazovaniya/npr-license/postupayushchim/obrazovatelnye-programmy/obrazovatelnye-programmy.html>

While enrolling in the residency program, resident doctors enter into an Agreement with the Hospital on training under the residency program for higher and (or) postgraduate education organizations, which sets out the rights and obligations of resident doctors.

While entering the residency program of the Hospital, resident doctors are familiarized with the Code of Honour of the Resident Doctor of the Hospital and undertake to comply with all its provisions. The Code of Honour is signed by the resident doctor in 2 copies, one copy is kept in the personal file, and the second copy is issued in person.

The State Compulsory Educational Standard, the Technical and Administrative Standard, the EP, and the list of privileges for residents specify the requirements for labour functions and the quality of their performance, which gives graduates clear guidelines that allow them to methodically improve their professional level and develop professional competencies. Employers will receive criteria for assessing the effectiveness of a specialist's work through the development of his or her competencies and the acquisition of the required qualifications.

In accordance with the Academic Policy, adhering to the basic principle of equality of rights of all to receive quality education of the state policy in the field of education of the Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III "On Education" <http://adilet.zan.kz/rus/docs/Z070000319>. The hospital guarantees that EP 7R01109 "Cardiac surgery (adults, children)" will be implemented in accordance with the principles of equality in relation to resident doctors, specialists, patients, regardless of gender, ethnic origin, religion, sexual orientation, socio-economic status and physical capabilities. Residency training is carried out in the state and Russian languages, while the resident doctor chooses the language of instruction independently (Law of the Republic of Kazakhstan "On Languages in the Republic of Kazakhstan" dated July 11, 1997 No. 151-I <https://adilet.zan.kz/rus/docs/Z970000151>)

The hospital adheres to the main principle of the legislation of the Republic of Kazakhstan in the field of healthcare - ensuring the equality of rights of citizens of the Republic of Kazakhstan to receive safe, effective and high-quality medical care in accordance with the Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI LRK "On Public Health and the Healthcare System". <https://adilet.zan.kz/rus/docs/K2000000360> .

The hospital trains resident doctors to interact with patients with gender, cultural and religious characteristics in accordance with the principle of equality regardless of gender, nationality, religion, socio-economic status in accordance with the regulatory documents of the Republic of Kazakhstan:

- Law of the Republic of Kazakhstan dated 11.10.2011 No. 483-IV "On religious activities and religious associations" <https://adilet.zan.kz/rus/docs/Z1100000483>

- Decree of the President of the Republic of Kazakhstan No. 384 dated 06.12.16 "On approval of the Concept of family and gender policy in the Republic of Kazakhstan until 2030" <https://adilet.zan.kz/rus/docs/U1600000384>

- Law of the Republic of Kazakhstan dated 08.12.09 No. 233-IV "On state guarantees of equal rights and equal opportunities for men and women" <https://adilet.zan.kz/rus/docs/Z090000223>.

The Hospital implements the development of scientific activity as a fundamental factor in the professional and personal growth of a medical specialist. While drawing up the IEP of a resident physician, not only a plan for the theoretical and clinical scope of knowledge is prescribed, but also a plan for the research work of the resident physician. A resident physician must plan scientific activities and publications throughout his or her studies; each year, upon completion of the academic period, at the midterm certification, the resident physician reports on the work done. EP 7R01109 "Cardiac Surgery (Adults, Children)" defines the competencies of a resident physician in the field of scientific research activity: formulate adequate research questions, critically evaluate professional literature, effectively use international databases in their daily activities, participate in the work of a research team; analyse and publicly present medical information based on evidence-based medicine; participate in applied medical research.

In order to improve the professional growth of the Hospital residents, the Scientific Club "School of Young Scientists" operates, within the framework of which seminars, master classes and conferences are held, as well as a round table on current topics of scientific research. The Hospital staff and invited specialists give lectures to resident doctors on topics on scientific foundations, research methodology, and writing articles: "Tips for writing medical clinical cases", "International practice for writing a clinical case report", "Communication skills, ethical standards and deontology in healthcare", "Principles of epidemiological safety and standards for residents".

In order to develop the skills of critical evaluation of literature, writing scientific articles and publications among resident doctors, the Hospital has planned lectures by specialists with extensive experience in scientific work. The hospital annually organizes courses in the field of scientific research methodology, writing medical clinical cases (report by Professor of the AEO "Nazarbayev University" Gaipov Abduzhappar Yerkinovich). Independent work of a resident physician also includes work with educational and additional literature, scientific data, writing abstracts and presentations on specific topics. Also, as part of independent work, residents are offered to analyse scientific publications from the standpoint of evidence-based medicine on a given topic of cardiac surgery. With independent study of scientific publications in periodicals and Internet resources, a resident physician develops critical and scientific thinking.

The catalogue of elective disciplines of the Hospital includes the discipline Evidence-Based Medicine. Evidence-based medicine is a new approach, a direction in the technology of collecting, analysing, summarizing and interpreting scientific information. This is the integration of the best scientific data with the clinical experience of the doctor and the values of the patient, conscientious, accurate and meaningful use of the best results of clinical studies to select a diagnosis for a specific patient.

Taking into account the achievements of scientific, technological, medical and pharmaceutical developments, the current and expected needs of society and the healthcare system, the EP plans to periodically make changes and additions to the compilation of EC disciplines. The Catalogue of Elective Disciplines of the Hospital includes disciplines not only in the core area, but also in social and behavioural sciences: "Public Health", "Evidence-Based Medicine", "Legal Regulation of Public Relations in the Sphere of Health Care", "Dispute Resolution in the Sphere of Health Care". Also, resident doctors periodically receive lectures on writing scientific articles and clinical cases.

2.3 Contents of the residency program

The hospital independently developed EP 7R01109 "Cardiac surgery (adults, children)" in accordance with the requirements of the order of the Ministry of Health of the Republic of Kazakhstan dated July 4, 2022 No. RK MOH-63 "On approval of state mandatory standards for levels of education in the field of health care" (SCES) and entered into the register of higher and postgraduate education with a coefficient of achievement of learning outcomes of 77.96%.

While studying disciplines, the solution of clinical situations is based on the consideration of the medical and biological foundations of diseases of internal organs. In residency, emphasis is placed on clinical practice, to form an independent clinical worldview using the behavioural and social foundations of communication skills, taking into account medical ethics and deontology. Prevention issues are considered at all stages of training. The catalogue of elective courses of the Hospital's residency includes disciplines studying issues of public health, medical jurisprudence and forensic medicine. The qualified employees of the Hospital will give lectures to resident doctors on communication skills and medical ethics. The Hospital implements the SOP "Quality Improvement and Patient Safety Program" in its daily activities and sets the highest priority on continuous improvement of the quality of services provided and increasing patient safety. The implementation of the quality improvement and patient safety program involves the management and all employees of the Hospital, external consultants and employees of outsourcing companies providing services at the Hospital, resident doctors of the Hospital, foreign specialists invited as part of mentoring and master classes, as well as patients, their family members and visitors. The residency EP is designed to continuously improve and maintain high quality of services and patient safety at the Hospital. Safety in relation to patients and their health is observed based on the ability of the resident physician to assess risks and use the most effective methods of diagnosis and treatment of patients to ensure a high level of quality of medical care. The resident physician carries out treatment measures in accordance with the protocols for the treatment of emergency conditions, observing the rules of ethics and deontology in relationships with patients under the supervision of a mentor, which ensures the safety of patients. In the process of mastering the EP 7R01109 "Cardiac Surgery (Adults, Children)", resident physicians, under the guidance of a mentor, will receive special knowledge, master practical skills within the framework of professional competencies that form the ability to effectively carry out their professional activities in various conditions, a high level of responsibility for decisions made, the ability to self-development, self-improvement, opens up broader opportunities for professional growth and development. The residency OP defines the competencies of the resident physician in the field of safety and quality: assess risks and use the most effective methods to ensure a high level of safety and quality of medical care; study the opinions of employees of the healthcare organization and inform the staff about measures to improve quality and ensure patient safety in the organization.

Hospital employees and involved specialists give lectures to resident doctors on the topics "Tips for writing medical clinical cases", "International practice of writing a clinical case report", "Communication skills, ethical standards and deontology in healthcare", "Principles of epidemiological safety and standards for residents".

EP 7R01109 "Cardiac surgery (adults, children)" was approved in 2023.

The use of new clinical protocols and guidelines in the educational process, regularly updated to take into account new achievements in medical science, is a guarantee that the content of the training programs corresponds to modern achievements in science and practice.

Consideration and inclusion of new achievements in cardiac surgery in the training program involves working with literature, Internet resources, educational and scientific materials on electronic media, computer training programs. The EP will be updated as clinical protocols, treatment recommendations, and new implementations in clinical practice are updated.

2.4 Program structure, content and duration

The content, volume and duration of EP 7R01109 "Cardiac surgery (adults, children)" strictly correspond to the State Compulsory Educational Standards.

The structure of EP 7R01109 "Cardiac surgery (adults, children)" is formed from various types of educational and clinical work that determine the content of education, reflects their relationship,

measurement and accounting. While forming the EP, the responsibility of both specialized and related disciplines for the formation of a competent graduate, the definition of competencies for each discipline is taken into account.

EP 7R01109 "Cardiac Surgery (Adults, Children)" during implementation will include the following documents:

- Educational program;
- Typical curriculum;
- Working curriculum;
- Individual educational plan;
- Catalogue of elective disciplines;
- Academic calendar;
- Class schedule;
- Syllabuses;
- Control and measuring tools;
- Portfolio of a resident physician.

Structure of EP 7R01109 "Cardiac Surgery (Adults, Children)"

№	Name of disciplines	Credits	Hours
1	Cycle of major disciplines	278	8340
1)	<i>Compulsory component</i>	262	7860
	Outpatient and polyclinic cardiac surgery (adult, pediatric)	16	480
	Inpatient cardiac surgery (adult)	112	3360
	Congenital heart defects	26	780
	Cardiology (interventional cardiology)	24	720
	Intensive care issues in cardiac surgery	16	480
	Arrhythmology	24	720
	Angiosurgery	24	720
	Perfusion and assisted circulation	20	600
2)	<i>Elective component</i>	16	480
	Clinical pharmacology of heart disease treatments	16	480
	Radiation and functional diagnostics of heart disease	16	480
2	Interim assessment		
3	End-of-course assessment	2	60
	Total:	280	8400

The program implementation period is 4 years.

The academic year includes one academic period (semester), ending with midterm assessment. Vacations are provided for duration of at least 7 weeks, with the exception of the final year.

2.4.2 Clearly define the mandatory component and the optional component, integrate practice and theory, as well as the program disciplines both horizontally and vertically.

The educational program of residency ensures the integration of practice and theory includes the content, sequence of training of a resident physician with the definition of the goals and results of training based on the performance of tasks and the provision of medical care to the population.

The total academic load for the entire period of study is 280 credits / 8400 hours, of which CC MD - 262 credits / 7860 hours, EC MD - 16 credits / 480 hours, end-of-course assessment - 2 credits / 60 hours.

The scope of the EP 7R01109 "Cardiac Surgery (Adults, Children)" includes theoretical training (classroom work) - 10%, clinical training (ICWRT) - 70%, independent training (IWR) - 20% of the total curriculum.

Information on the behavioral and social disciplines of the educational program "Cardiac Surgery (Adults, Children)".

Behavioural and Social Sciences (planned EC)	Years of study/ Courses		Number of credits/hours		Teaching methods	Assessment methods
	1	2	classroom lessons	practical lessons		
Legal regulation of public relations in the field of health care		+	12	84	seminars, webinars, conferences	testing
Dispute resolution in the field of health care		+	12	84	seminars, webinars, conferences	testing
Public health		+	12	84	seminars, webinars, conferences	testing

Information on clinical disciplines included in the educational program "Cardiac surgery (adults, children)".

Clinical disciplines	Number of weeks	Number of hours	Expected final learning outcomes (skills)	Clinical base
Cardiac surgery outpatient (adults, children)	9	480	A resident physician must be able to organize the work of an outpatient cardiac surgery centre, the work of a cardiac surgeon in a polyclinic; choose tactics for acute cardiac surgical pathology; promptly identify congenital and acquired heart defects with referral for surgical treatment; manage patients with artificial heart valves and a pacemaker at the outpatient stage; monitor a child with congenital heart disease in a polyclinic.	Hospital NSMC
Cardiac surgery in hospital (adults)	67	3360	A resident physician must be able to provide emergency care for cardiac diseases in accordance with international protocols; be proficient in the basics of surgical tactics and principles of surgical treatment of diseases of the heart, aorta and pericardium; master the basics of minimally invasive cardiac surgery.	Hospital
Congenital heart defects	15	780	A resident physician must have knowledge of the patterns of blood circulation in the fetus, new-born and young child; be proficient in the algorithms for diagnosing all congenital heart defects in children, determine the indications for surgical correction of congenital heart disease, and be proficient in the technique of performing them.	NSMC
Cardiology (interventional cardiology)	14	720	A resident physician must be able to manage patients with CHF; conduct cardiac rehabilitation, have a strategy for endovascular interventions in cardiovascular diseases; perform endovascular surgeries (angioplasty, stenting, ablation).	Hospital
Issues of intensive care in cardiac surgery	9	480	A resident physician must be proficient in general anaesthesia, principles of anaesthesia during heart and aortic surgeries, postoperative management depending on the type of surgery, be able to perform extended cardiopulmonary resuscitation, and be able to perform tracheal intubation/extubating.	Hospital NSMC
Arrhythmology	14	720	A resident physician must be proficient in the concepts of	Hospital

			clinical arrhythmology and electrophysiology; have a mastery of the basic research methods for heart rhythm and conduction disorders; be able to provide medical care to patients with heart rhythm and conduction disorders.	NSMC
Angiosurgery	14	720	A resident physician must be able to interpret the results of non-invasive research methods; determine indications for invasive research methods; determine indications for surgical or endovascular treatment, determine surgical technique.	Hospital
Perfusion and assisted circulation	12	600	The resident physician must study the basics of artificial circulation; be able to set up a circuit on the artificial circulation system, monitor the adequacy of perfusion, manage hemodynamic during perfusion, perform extracorporeal membrane oxygenation, intra-aortic balloon counterpulsation, and be able to provide perfusion support for minimally invasive cardiac surgery.	Hospital NSMC
Clinical pharmacology of heart disease treatments	9	480	The resident physician must have knowledge of clinical pharmacology and specialized medical care, including in urgent conditions; be able to carry out preventive and rehabilitation measures in patients with heart disease of all age groups.	Hospital
Issues of radiation and functional diagnostics of heart diseases	9	480	The resident physician must be proficient in all radiological examination methods, digital technologies in the diagnosis of heart disease; be able to perform echocardiography; stress echocardiography and transoesophageal echocardiography.	Hospital

EP 7R01109 "Cardiac Surgery (Adults, Children)" is implemented in accordance with national and international LSI governing the activities of the field of cardiac surgery. As a result of training, the resident is able to act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in his specialty.

In order to ensure that EP 7R01109 "Cardiac Surgery (Adults, Children)" complies with the changing conditions and needs of society and the healthcare system, amendments and additions to the regulatory documents of the Republic of Kazakhstan, the Hospital will update the content of the EP.

The authorized bodies in healthcare and education will participate in the implementation of the residency EP: the Ministry of Health of the Republic of Kazakhstan (placing state orders), the Ministry of Higher Education of the Republic of Kazakhstan (EHEA, NEDB, Financial Centre, NCIE), healthcare institutions of the regions of the Republic of Kazakhstan (grants of the Ministry of Education and Science), healthcare organizations of the Republic of Kazakhstan (clinical bases).

Modification and correction are carried out on the basis of newly developed elective disciplines of the elective component and their inclusion in the EP 7R01109 "Cardiac Surgery (Adults, Children)". The requirements for a graduate of the EP 7R01109 "Cardiac Surgery (Adults, Children)" to perform various roles in the healthcare system after completion are determined on the basis of the learning outcomes.

2.5 Organization of training

The hospital will implement EP 7R01109 "Cardiac Surgery (Adults, Children)" in accordance with the order of the Ministry of Health of the Republic of Kazakhstan dated December 21, 2020 No. RK MOH-304/2020 "On approval of the provisions on the clinical base, clinic of the organization of education in the field of health care, university hospital, residency base, integrated academic medical centre and the requirements imposed on them" in the departments of the Hospital providing inpatient, outpatient, emergency, diagnostic care and at external clinical bases.

Training of resident doctors of EP 7R01109 "Cardiac Surgery (Adults, Children)" will be carried out in order to provide the healthcare industry with qualified personnel capable of providing medical

care to the population with cardiovascular diseases. The material and technical equipment of the departments facilitates the acquisition of a high level of knowledge and skills by resident doctors, conditions have been created for conducting classes for resident doctors: a training room is provided, access to patients, consultations, rounds is provided, there is Internet access, the right to maintain medical documentation, including electronic. During practical classes, independent work, the resident doctor has the opportunity to be present during various diagnostic and therapeutic manipulations and procedures.

In the Hospital, the EP will be implemented in the departments of cardiac surgery, arrhythmology, and cardiology.

Planning and implementation on the basis of the Hospital EP 7R01109 "Cardiac Surgery (Adults, Children)" initiative of cardiac surgeons in accordance with the qualification requirements for the implementation of the residency EP. Guided by the Procedure for the Development of Educational Programs of the Academic Policy of the Hospital, the development of the EP was carried out by a working group, which included potential teachers/mentors - cardiac surgeons, cardiologists, arrhythmologists of the Hospital and external stakeholders - representatives of practical healthcare. The developed EP was reviewed at meetings of teachers/mentors, the EP was provided to practical healthcare specialists/potential employers for review (feedback).

After receiving the reviews, the EP was reviewed and approved at a meeting of the SCC of the Hospital. The members of the SCC review the residency EP for compliance with the State Compulsory Educational Standards of the Republic of Kazakhstan, review the CED according to the specialist training trajectories taking into account the pre- and post-requisites, evaluate the choice of methods for assessing the key competencies of residents, review Opportunities, the department's resources to implement the program, compliance with the qualification requirements. The main clinical base for training resident physicians of EP 7R01109 "Cardiac Surgery (Adults, Children)" are the departments of the Hospital providing primary, specialized, highly specialized medical care at the inpatient and outpatient stages to patients with cardiovascular diseases.

As part of the rotation, the resident physician of EP 7R01109 "Cardiac Surgery (Adults, Children)" will undergo training in the departments of the clinical base of JSC "National Scientific Medical Centre": arrhythmology department, children's cardiac surgery centre, department of anaesthesiology, resuscitation and intensive care of the cardiology and cardiac surgery profile, department of cardiac surgery with rehabilitation, department of interventional cardiology. In subsequent academic periods, it is planned to rotate resident physicians to medical organizations providing preventive, advisory, diagnostic and therapeutic care in various healthcare organizations in the regions of the Republic of Kazakhstan in accordance with Annex 50 of the Order of the Ministry of Health of the Republic of Kazakhstan dated January 9, 2023 No. 4 "On approval of standard curricula for medical and pharmaceutical specialties". Clinical sites that can train resident physicians of EP 7R01109 "Cardiac Surgery (Adults, Children)" are multidisciplinary medical organizations providing primary, specialized, surgical care to the population of the Republic of Kazakhstan at the outpatient and inpatient stages. In order to obtain appropriate access to various aspects of cardiac surgery, the implementation of EP 7R01109 "Cardiac Surgery (Adults, Children)" includes clinical, diagnostic practice of a resident physician in numerous places of training, taking into account the specifics of the discipline being studied.

Clinical training includes practical work of a resident physician under the guidance of a mentor, participation in solving specific clinical situations with cardiac surgeons.

The resident physician is sent to a clinical base, the profile of which contributes to the most complete acquisition of practical skills in accordance with the final learning outcomes.

In accordance with the order of the Ministry of Health of the Republic of Kazakhstan dated December 15, 2020 No RK MOH-270/2020 "On approval of the rules for placing a state order, admission to training and training of medical personnel in residency", clinical training of resident physicians will be carried out in accredited clinics in the field of healthcare.

The hospital is accredited by the Public Organization of Experts and Consultants for External Comprehensive Assessment in Healthcare of the Centre for Accreditation for Quality in Healthcare

and received the highest category certificate No. KZ66VEG00011799 dated November 25, 2021. The Hospital's base is equipped with everything necessary for theoretical knowledge and diagnostic skills. In order to present and deeply master the practical skills of a resident physician, rotation to other clinical bases is provided due to the insufficient number of specialized patients. As part of the rotations of resident physicians, an agreement on joint activities was concluded with JSC "National Scientific Medical Centre", on the basis of which resident physicians will be able to be sent to clinical bases during a certain cycle of disciplines; civil-law contracts have been concluded with mentors who are ready to train resident physicians at their place of work/department. The clinical base of JSC "NSMC" is accredited by the Public Organization of Experts and Consultants for External Comprehensive Assessment in the Field of Healthcare of the Accreditation Centre for Quality in Healthcare with the assignment of the highest category No. KZ91VEG00011931 dated December 24, 2021.

The Department is responsible for coordinating the educational process during the implementation of EP 7R01109 "Cardiac Surgery (Adults, Children)", starting with the receipt of documents and ending with graduation.

2.6 Relationship between postgraduate medical education and the provision of medical care

To develop practical skills of resident doctors within the framework of professional competencies, the resident works during the cycle under the guidance of a clinical mentor at the residency bases with regular assessment and feedback. The mentor is appointed from among qualified specialists in practical healthcare, having the first or highest qualification category, with at least 5 years of experience in the relevant specialty. The volume of independent clinical work under the supervision of a clinical mentor is 70% of the volume of classroom work for each discipline. Upon completion of the cycle, the student is assessed in the manner established by the Hospital.

The set of norms and rules governing the mentoring of residents is the internal document of the Hospital, approved by the order of the director "Regulations on the clinical mentor".

The regulation defines the goals, objectives, functions, rights and responsibilities of the clinical mentor of the resident physician. Mentoring is a process of professional training and adaptation of the resident physician to independent performance of official duties and is carried out at the clinical bases (departments) of the Hospital, providing training at all levels of medical care, to improve the quality of individual training. Training and education of a resident physician in EP 7R01109 "Cardiac Surgery (Adults, Children)" is carried out with regular assessment and feedback. Assessment of the educational achievements of resident physicians in the Hospital is carried out using criteria and procedures developed in accordance with the goals and objectives set for the implementation of the EP. Assessment of the resident physician is carried out by means of an oral survey, solving situational problems, testing, and interviews. Feedback is carried out by specialists of the Department by means of a questionnaire on satisfaction with the training process through the AIS "Platonus". EP 7R01109 "Cardiac Surgery (Adults, Children)" is implemented by integrating elements of training and providing medical care to the population. The resident physician studies practical skills in providing medical care under the guidance of mentors, cardiac surgeons with the highest category, in the Hospital and at additional clinical sites in the city. Integration of clinical, educational and research activities has great advantages, it will contribute to the provision of modern medical education and improvement of healthcare standards focused on the patient.

To achieve the main goal of EP 7R01109 "Cardiac Surgery (Adults, Children)", the Hospital will effectively use the Opportunities of the healthcare system to provide medical care by a resident physician by providing timely assistance to the population; improving the health of the adult population by preventing diseases; achieving expected results in the prevention, diagnosis, treatment, medical examination, rehabilitation of patients.

While implementing EP 7R01109 "Cardiac Surgery (Adults, Children)", the Hospital will use all available Opportunities of the healthcare system by concluding agreements on clinical bases, joint activities, academic mobility, Opportunities of visiting residency in the regions with the purpose of full development of professional competencies of resident physicians.

Conclusion on standard 2:

EEC conclusions on criteria. Compliant out of 22 standards: fully - 22.

Standard 3: ASSESSMENT OF RESIDENTS

3.1 Assessment methods

A study of the assessment tools (colloquiums, test surveys, oral surveys, and situational tasks) showed that the MCH professional education department has implemented an appropriate assessment policy that allows for a comprehensive assessment of residents' academic achievements. During the interview, residents spoke about the assessment forms, such as midterm and end-of-course assessment, and that they were satisfied with their implementation. Residents will also be able to receive regular feedback from teachers. The system of appealing the assessment results is reflected in the Hospital's Academic Policy and there have been no precedents of appeal during the period of operation of the educational organization. The assessment covers not only knowledge and skills, but also professional behaviour and communication skills, which is confirmed by participation in clinical rounds, outpatient appointments, lectures, seminars, solving situational problems, and analysing cases. The criteria for admission to the end-of-course assessment are good grades for interim assessments, no absences without good reason. This is documented in the Order of the Ministry of Health of the Republic of Kazakhstan dated December 11, 2020 No RK MOH-249/2020 "On approval of the rules for assessing the knowledge and skills of students, assessing the professional readiness of graduates of educational programs in the field of health care and specialists in the field of health care." Admission to an independent examination of residents is the mastery of credits in full, provided for by the educational program, including successful completion of midterm assessment. In the practice of the professional education department of the MCH, residents (including other specialties) pass an independent examination in 100% of cases.

Validation and assessment of the reliability of resident assessment methods (tests, tasks, and cases) is carried out as follows: upon completion of the cycle and the final control, an examination sheet is created with the results of resident doctors. In the professional education department of the MCH, there is a practice of involving external examiners in the assessment of residents, which is documented in the order of the director of the MCH on the creation of an examination committee with the involvement of external examiners (subject to agreement). This ensures the independence and objectivity of the assessment results.

Thus, to verify the data of **standard 3**, the experts asked questions to the head of the professional education department, Yerzhanova Farida Nurmukhambetovna, and checked the documents and methods for assessing residents.

In the professional education department of the MCH, we were presented with control and measuring tools for cardiac surgery, which were approved at a meeting of the cardiac surgery department, and then agreed upon with the Academic Council. Control and measuring tools were reviewed by the highest category cardiac surgeon of the MSE on the REM "Multidisciplinary City Hospital No. 2" of the Akimat of Astana, PhD V.D. Dikolaev (external review), head of the therapeutic service of the MCH PAA RK PhD Kulmyrzaeva N.K. (internal review).

The results of the assessment of residents will be documented in the AIS "Platonus". There is a document on appealing the assessment results, which is reflected in the Academic Policy - protocol SCC 1 dated 31.03.2021.

During a visit to the MCH and an interview with the head of the professional education department, Yerzhanova Farida Nurmukhambetovna, the commission was convinced that there is a documentation system that is transparent and accessible to all teachers and employees, and includes documents such as annual operational plans, department regulations, agreements with teachers and residents, and educational and methodological documentation (work program, working curricula, syllabuses, journals), assessment tools (checklists, statements), certificates and verifications. A review of the website showed that its pages contain documents necessary for residents (Academic Policy of the Hospital, Algorithm for organizing postgraduate education in residency, On approval of state mandato-

ry standards, On approval of standard curricula, Regulations on the Hospital's residency, Rules for placing a state order, admission to training and preparation of medical personnel in residency, Academic Calendar, Schedule of classes, List of groups of students, Catalogue of elective disciplines) and there is information (announcements, other LSI) that is regularly updated.

During a visit to the MCH, the 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: "Yes, they are involved".

3.2 Relationship between assessment and learning

While interviewing 5 teachers regarding the assessment methods, the experts received convincing information that the assessment methods meet the necessary conditions and standards. Residents of other specialties studying at the MCH shared their opinions on the timeliness of providing tests, conducting consultations before exams, the clarity of the entire assessment procedure and its fairness. They said that the CIS cover the required amount of information learned during training.

The experts determined that the choice of resident assessment methods is based on patient management, participation in planning meetings/rounds/consultations/operations, since the practical part of training is the main one. For example, such current assessment methods as participation in consultations contribute to inter-professional learning. And such a method as participation in operations or dressings demonstrates the integration of training and an emphasis on clinical skills. The 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 questionnaire and published in the AIS "Platonus". In the interview, residents confirmed that they are provided with feedback after completing their training.

The 7 interviewed employer representatives also indicated that the training of resident graduates in other specialties corresponds to the modern development of medical practice and science, since the knowledge and skills they have acquired are sufficient for a young specialist. A wish was expressed to send residents who have completed their training to rural and regional medical institutions.

Conclusions of the EEC by criteria. Comply with 9 standards (including 6 basic, 3 improvement standards): fully - 9, partially - 0, do not correspond - 0.

Standard 4: RESIDENTS

4.1 Admissions and selection policy

4.1.1 To provide for the relationship between the mission and selection of residents.

The procedure for admission and selection to the Hospital's residency is carried out in accordance with the legislation of the Republic of Kazakhstan and internal regulatory documents:

- Constitution of the Republic of Kazakhstan;
- Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III "On Education";
- Order of the Ministry of Health of the Republic of Kazakhstan No. RK MOH-270/2020 dated December 15, 2020 "On approval of the rules for placing a state order, admission to training and training of medical personnel in residency";
- Order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600 "On approval of the Model rules for admission to training in educational organizations implementing educational programs of higher and postgraduate education";
- Order of the Ministry of Health of the Republic of Kazakhstan No. 27 dated January 30, 2008 "On approval of the lists of clinical specialties for training in internship and residency" (with amendments and additions as of May 14, 2021);
- "Rules for admission to the residency of the MCH PAA RK".

Persons who have mastered the OP of higher education and internship, and have a document assigning the qualification "Doctor" is admitted to the residency of the Hospital.

The mission of EP 7R01109 "Cardiac Surgery (Adults, Children)" involves training highly quali-

fied independent specialists in the field of cardiac surgery with the integration of knowledge and fundamental principles of cardiac surgery into daily clinical practice, taking into account the latest global achievements in the field of cardiac surgery, creating conditions for supporting resident doctors in research endeavours and instilling the necessary elements of success for a career in cardiothoracic surgery, including objectivity, integrity, self-motivation and a sense of responsibility. In accordance with this mission, the Hospital implements a policy of admission and selection to residency, focusing on the priorities of the healthcare needs of the Republic of Kazakhstan in the field of cardiac surgical care for the population of the Republic of Kazakhstan and taking into account the possibilities of clinical, practical training, provision of educational, material and technical resources, the capacity of clinical bases, the maximum permissible workload of the Hospital mentors. Applications for residency are accepted from July 3 to July 25 of the calendar year. Entrance examinations for residency are held from August 8 to August 16 of the calendar year, enrolment until August 28 of the calendar year.

For the period of entrance examinations and enrolment in residency, by order of the Director of the Hospital, an admissions committee, an examination committee for specialties, and an appeals committee are created, which subsequently carry out their activities in accordance with regulatory documents.

The Admissions Committee of the Hospital carries out its activities under the chairmanship of the Director and includes the following duties:

- 1) consultation of applicants on issues of the selected group of educational programs for residency, familiarization with the procedure for the entrance examination;
- 2) organization of admission and checking documents of applicants;
- 3) organization of the entrance examination for specialties.

Admission to training is carried out upon an application for admission, which is submitted by the applicant or an authorized person (upon presentation of a power of attorney for the implementation of the relevant actions) with the attachment of the necessary documents, according to the list.

The examination committee for specialties is formed from among the Hospital teachers who have an academic degree of doctor and (or) candidate of medical sciences and (or) a degree of doctor of philosophy (PhD) in the relevant profile, practicing doctors with at least 5 years of work experience, having the highest and (or) first qualification category in the specialty.

Applicants entering the residency take an entrance exam in the specialty in oral form.

Applicants are admitted to the residency on a competitive basis based on the results of the entrance exams. The results are formed by determining the average score according to the criteria:

1. GPA based on the results of training in internship.
2. Assessment of the final state certification of the internship.
3. The grade for question 1 of the entrance exam ticket for residency.
4. The grade for question 2 of the entrance exam ticket for residency.
5. The grade for question 3 of the entrance exam ticket for residency.

Admission to residency is carried out on the basis of the minutes of the admissions committee and is approved by the order of the director of the Hospital or the person performing his duties, which is communicated to applicants by publishing on the website.

An agreement on the provision of educational services is concluded between the Hospital and the resident physician.

4.1.2 To ensure a balance between available training opportunities and resident recruitment.

While recruiting resident physicians for training, the hospital will ensure a balance between available educational resources (clinical facilities, Academic staff, provision of classrooms, computers for theoretical training, PPE kits, surgical suits, meals, changing rooms) and the contingent of trainees.

4.1.3 The medical educational organization should formulate and implement a policy for admission to residency and the transfer of residents from other national or international programs. The admission policy includes the criteria and process for selecting residency applicants, including the admission of residents with disabilities. The admission policy complies with national legislation and takes into account the safety of residents.

The hospital carries out the procedure for transferring resident doctors in accordance with paragraph 31 of the order of the Minister of Education and Science of the Republic of Kazakhstan dated October 30, 2018 No. 595 "On approval of the Model rules for the activities of higher and (or) post-graduate education organizations" <https://adilet.zan.kz/rus/docs/V1800017657> internal regulatory document "Academic policy of the MCH PAA RK".

Transfer of resident doctors from other educational organizations, including foreign ones, is carried out only during vacation time. At the same time, in the event of a state of emergency, the occurrence of social, natural and man-made emergencies, wartime, as well as in the context of armed, military conflicts in the country of study, the transfer and reinstatement of citizens of the Republic of Kazakhstan, candidates from foreign educational organizations is carried out during the academic year.

A resident doctor is transferred or reinstated regardless of the timing of expulsion upon reinstatement. A resident physician is transferred or reinstated after expulsion if he/she has fully completed the first academic period, in accordance with the individual curriculum.

When a resident physician is transferred to the Hospital, a transfer committee is created, at a meeting of which the resident physician's application for transfer, the profile of the educational program, the transcript, a copy of the examination report on passing the entrance exam to residency, the academic difference in disciplines/credits are considered, and cases of violation of academic integrity, the reason for the transfer are taken into account. If an academic difference in disciplines/credits is detected, the Hospital's transfer committee determines the year (course) of study and assigns a transfer of learning outcomes. In the event of a positive decision of the transfer committee meeting, the transfer is formalized by a corresponding order of the Director of the Hospital.

The transfer of resident physicians from other universities to a national university or another university is carried out subject to their additional payment of the difference in the cost of the educational grant.

Foreigners are admitted to residency on a paid basis.

Admission of applicants to residency with disabilities who require special conditions is carried out in accordance with the legislation of the Republic of Kazakhstan. Social protection is not only assistance to people who find themselves in a difficult financial situation, but also the creation of conditions for self-realization, protection of rights and interests in all spheres of life. In the Hospital, for material and social support of residents, free transportation, meals in the canteen, separate changing rooms with individual cabinets, provision of personal protective equipment and surgical suits are provided. In the practice of the Hospital, given the short term of implementation of the residency program, applicants to residency with disabilities who require special conditions were not admitted. In accordance with Article 48 "Protection of the health of students and pupils" of the Law of the Republic of Kazakhstan "On Education" and Section 4 "Safety and Labour Protection" of the Labour Code of the Republic of Kazakhstan, the Hospital undertakes to ensure healthy and safe conditions for residents upon admission to residency, during the acceptance of documents and entrance examinations.

EP 7R01109 "Cardiac Surgery (adults, children)" defines the competencies of a resident physician in the field of safety and quality: assess risks and use the most effective methods to ensure a high level of safety and quality of medical care; study the opinions of employees of the healthcare organization and inform the staff about measures to improve the quality and ensure the safety of patients in the organization.

4.1.4 A medical educational organization **must** guarantee the transparency of the selection procedure and equal access to postgraduate education.

The hospital, guaranteeing the transparency of the selection procedure for residency training, adheres to the basic principles of the state policy in the field of education of the Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III "On Education" equal rights of all to receive quality education; accessibility of education for the population taking into account the intellectual development, psychophysiological and individual characteristics of each person; secular, humanistic and developing nature of education, priority of civil and national values, human life and health, free development of the individual; respect for human rights and freedoms; stimulation of the education of the individual

and development of giftedness; unity of training, education and development. While conducting the entrance exam, members of the examination committee take into account the reason for the choice of the EP by the applicant, his interest in this specialty, active participation in student events, scientific conferences, and the presence of a certain awareness of the chosen specialty. In case of equal results of the entrance exam, preference in enrolment is given to persons with medical experience. Further, scientific publications are taken into account, including in top-rated scientific publications; certificates of scientific developments; certificates of awarding scientific scholarships, grants; certificates/diplomas for participation in scientific conferences and competitions.

The hospital ensures transparency and fairness of the procedure for selecting and enrolling applicants in residency.

Information for interested parties about the start of the work of the admissions committee; about the procedure, rules and deadlines for accepting documents for residency; about the schedule of entrance exams; about the number of applicants; about the results of entrance exams and enrolment is posted on the website in the Residency section.

Tuition fees for an academic year in the educational program

Number of residents	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024
Students citizens of the Republic of Kazakhstan				1020000	1250000
International/foreign residents	-	-	-	1020000	1650000

4.1.5 The medical educational organization **must** ensure that applicants to the residency program have a high level of understanding of biomedical sciences achieved at the pre-graduate level, and this is assessed during entrance examinations.

Applicants wishing to master the residency program must have a high level of basic biomedical education, since the formation of a future doctor in the relevant specialty depends on the level of knowledge in the field of biomedical sciences, on the ability to apply them in clinical practice.

The level of knowledge of biomedical sciences upon admission to residency is reflected in the appendix to the diploma of completion of the bachelor's degree and internship.

Upon admission to residency, members of the examination committee of the Hospital familiarize themselves with the applicant's personal file, in which they pay special attention to the appendix to the diploma of basic medical education with grades obtained in mastering disciplines in the field of basic biomedical sciences, since they are an important criterion in the training of a resident doctor as a clinical specialist.

The medical educational institution **should**:

4.1.6 consider the specific abilities of applicants within the framework of its selection policy in order to improve the results of the learning process in the chosen specialty.

Admission to residency is carried out on the basis of the minutes of the admissions committee and approved by the order of the director of the Hospital or the person acting in his/her responsibilities, which is communicated to applicants by publishing on the Internet resource of the Hospital and information boards of the admissions committee. In the event of equal indicators of competition scores, priority in admission is given to persons with medical experience. Then, scientific achievements corresponding to the profile of the educational program are taken into account, they are: scientific publications, including in top-rated scientific journals; certificates of scientific developments; certificates of awarding scientific scholarships, grants; diplomas/diplomas for participation in scientific conferences and competitions.

4.1.7 develop a procedure for appealing against the decision of the admissions committee.

The appeals system in the Hospital is provided for by the Academic Policy of the Hospital.

The Hospital has an appeals mechanism to ensure compliance with uniform requirements and resolve disputes regarding the results of the entrance examination. An appeals committee is created to consider applications from persons who disagree with the results of the entrance examinations at the

Hospital. The chairman and members of the appeals committee are approved by the order of the director - chairman of the admissions committee from among employees who have an academic degree and are not members of the examination committee; the appeals committee consists of an odd number of members, including its chairman. The appeals committee accepts and considers applications from persons entering the residency on the content of examination materials and technical reasons, makes a decision on the application of the person appealing the results of the entrance examination.

The application for appeal is submitted to the chairman of the appeals committee by the person entering the residency before 13:00 the day after the announcement of the results of the entrance examination. When considering the application by the appeal committee, the person filing the appeal shall present an identity document.

The appeal committee shall work with each person individually. If a person fails to appear at the appeal committee meeting, his/her appeal application shall not be considered. The decision of the appeal committee shall be made by a majority vote of the total number of members of the committee. In case of a tie, the vote of the committee chairman shall be decisive. The work of the appeal committee shall be formalized in a protocol signed by the chairman and all members of the committee. After the end of the appeal committee meeting, the results of the entrance examination, taking into account the appeal, shall be posted on the Hospital website.

4.1.8 provide for the inclusion of resident organizations or individual active residents in the process of developing the policy for admission and selection of residents or take into account their opinion obtained through feedback.

The internal regulatory documents of the Hospital, including the Rules for Admission to Residency, are regularly reviewed in connection with the introduction of additions and amendments to the current regulatory legal acts of the Republic of Kazakhstan.

Discussion, revision and approval take place at a meeting of the collegial body of the Hospital. The Academic Council of the Hospital also includes representatives of residents in each specialty, which has the right to vote and choose, and represent the interests of students.

4.1.9 have mechanisms for periodically reviewing the resident admission policy, based on relevant social and professional data, in order to meet healthcare needs.

The Hospital reviews the admission policy and rules reflected in the internal document "Rules for Admission to Residency" as additions and changes are made to the current LSI of the Republic of Kazakhstan:

- Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III "On Education";
- Order of the Ministry of Health of the Republic of Kazakhstan dated May 25, 2021 No RK MOH-43 "On approval of the list of medical specialties of residency programs";
- Order of the Ministry of Health of the Republic of Kazakhstan dated December 15, 2020 No RK MOH-270/2020 "On approval of the rules for placing a state order, admission to training and training of medical personnel in residency";
- Order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600 "On approval of the Model rules for admission to training in educational organizations implementing educational programs of higher and postgraduate education".

As part of preparation for admission and recruitment to residency for the upcoming academic year, the Department monitors the needs of the Hospital departments for personnel and the availability of resources for the implementation of the OP. This process is carried out in April of the calendar year. The need for personnel is determined by the capabilities of the clinical base, as well as according to the needs of practical healthcare.

EP 7R01109 "Cardiac Surgery (adults, children)" was registered in the Register in 2023; there have been no admissions to training at the moment.

4.2 Number of residents

In accordance with the SOP "Algorithm for organizing postgraduate education in residency based on the Hospital of the Medical Center of the Presidential Administration of the Republic of Kazakhstan", approved by the order of the director No. 261 dated August 17, 2022, before the start of admis-

sion to residency, the Hospital analyzes the needs of clinical departments for resident doctors and the level of educational resources of the departments (material and technical, academic, personnel potential). Based on the applications received, it determines the possible number of residents to be accepted. Currently, the Hospital plans to implement EP 7R01109 "Cardiac Surgery (adults, children)" from the 2024-2025 academic year.

Admission to the residency of the EP 7R01109 "Cardiac Surgery (adults, children)" will be carried out in accordance with such possibilities for the implementation of the EP as providing the opportunity to master outpatient and inpatient practice; developing infrastructure and material and technical base of the Hospital departments; qualified Academic staff.

The Hospital has AIS "Platonus", which reflects the entire educational process, there is a classroom with stationary computers with Internet access, and access to electronic library databases, there is a conference hall, lecture halls equipped with multimedia equipment.

4.2.2 The medical educational institution **must** have a mechanism for reviewing the number of residents accepted for training, taking into account consultations with stakeholders.

The hospital will periodically review the number of resident doctors accepted for EP 7R01109 "Cardiac Surgery (adults, children)" through written requests to the Healthcare Institutions, LEAs of the regions of the Republic of Kazakhstan, informing them about the implementation of the residency program at its base and the training of qualified specialists. Every year at the beginning of the year, the Department collects the needs and staffing of the department implementing the residency program.

4.2.3 The medical educational institution **should**:

- have accessible information on healthcare needs, which includes consideration of a balanced recruitment of residents in accordance with the gender, ethnic and social characteristics of the population, includes a policy for recruiting and accepting residents from minority groups, their number of practicing specialists (doctors) from rural areas and special groups of the population (for example, disabled people).

- have approaches that allow adapting the number of accepted residents taking into account the available information on the number of qualified candidates, on national and international labour markets, the need for healthcare specialists in various fields of medicine.

While recruiting for residency, the hospital is guided and will be guided by: The Law of the Republic of Kazakhstan "On Education", <https://adilet.zan.kz/rus/docs/Z070000319> The Code of the Republic of Kazakhstan "On Public Health and the Healthcare System", <https://adilet.zan.kz/rus/docs/K2000000360> Order of the Ministry of Education and Science of the Republic of Kazakhstan dated August 11, 2023 No. 403 "On approval of the Rules for sending a specialist to work, reimbursement of expenses incurred from budgetary funds, granting the right to independent employment, exemption from the obligation or termination of the obligation to work off by citizens of the Republic of Kazakhstan who studied on the basis of the state educational order.". <https://adilet.zan.kz/rus/docs/V2300033291/info>

The Hospital departments participating in the implementation of the residency program submit a residency requirement for the upcoming academic year, taking into account the needs of the labour market.

The Hospital trains highly qualified personnel for the country's organizations, and also plans to revise the number of resident doctors in accordance with the allocated state educational order, grants from the Ministry of Education and Science and applicants on a paid basis. In the future, it is planned to expand the geography of students.

Thus, the Hospital accepts students for residency taking into account the country's need for personnel, current legislation and LSI of the country, available material and technical equipment and human resources.

4.3 Support and consulting of residents

A medical educational organization **must**:

4.3.1 have a system of academic consulting for residents.

The Admissions Committee provides detailed consultation to residency applicants on the list of residency programs and clinical sites of the Hospital. For interested residency applicants, information on each residency program is freely available on the website <https://bmcudp.kz/ru/science-and-education/otdel-nauki-i-professionalnogo-obrazovaniya/npr-license/postupayushchim/obrazovatelnye-programmy/obrazovatelnye-programmy.html>

The Hospital provides academic consulting by specialists of the Department. Consultation is provided on issues of organizing the educational process (academic calendar, schedule, individual educational plan (IEP), elective component disciplines). Each resident physician is assigned to a department by clinical profile, which ensures and participates in the implementation of the EP, the formation of the IEP, the implementation of clinical, educational and scientific activities. In addition, a clinical mentor is assigned to the resident physician for the duration of mastering the discipline, whose functions include guiding the resident physician in mastering the practical skills and competencies necessary in the process of his training. Academic advisory work of resident physicians is carried out by specialists of the Department throughout the entire period of training.

4.3.2 ensure that consultations are based on the results of monitoring the academic progress of residents, including unforeseen incidents.

Monitoring and control of the progress of resident doctors is carried out through a survey on satisfaction with the educational process, analysing the educational achievements of resident doctors through the AIS "Platonus".

Analysis of unintentional incidents in the areas of legal security of resident doctors, transparency of the educational process, protection of personal data, and confidentiality principles is also carried out by Department specialists who are constantly in touch with resident doctors and are ready to receive them in the Department on any issue, through communication via WhatsApp, Instagram messengers, and in the form of requests to the Department's email addresses. In general, all Hospital staff adheres to the SOP "Rules for Incident Management and Communication with Patients", approved by order of the Hospital Director No. 397 dated November 19, 2020.

4.3.3 provide support to residents focused on social, financial and personal needs.

The Hospital creates conditions for the development of professional and social competence, active civic position of students, promotes the development of personal qualities of future doctors. Meetings of students with the Deputy Director for Strategic Development, Science and Education and the Head of the Department on issues related to the organization of the educational process and educational work, on issues in the area of social, financial and personal needs are held.

In the departments of the Hospital that train residents, mentors conduct educational work with residents.

To expand their knowledge in scientific fields, residents are given the opportunity to participate in various scientific conferences. Mentors actively involve residents in scientific and practical events held in the Hospital, thus assisting them in the development of their scientific and practical potential.

4.3.4 have and allocate appropriate resources for social and personal support.

The Hospital considers the issues and needs of each resident physician individually. When studying on a fee-paying basis at their own expense, payment may be made in instalments (50/50); in isolated cases of financial difficulty in paying for training, the resident physician may apply for a deferment or monthly payment. The Hospital also provides free transportation on 6 routes within the city and nearby settlements, which can be used by resident physicians. Resident physicians are allocated rooms with personal lockers for changing clothes. Resident physicians are allowed to combine work in their free time from training. The Hospital provides full-time positions for a resident physician at 0.5 of the rate.

4.3.5 guarantee confidentiality regarding consultations and support provided, where necessary.

In order to provide feedback, the Hospital periodically conducts a survey of students on satisfaction with the conditions and quality of training, based on the results of which an analysis is made to identify problematic issues. In the L building on the 1st floor there is a Message Box "For letters and requests to the Director of the MCH PAA RK". Residents' requests are processed by the Department's

specialists, using all possible resources for social and personal support of students. While resident doctors contact us on any issues, the principle of confidentiality is observed.

4.3.6 provide support in professional orientation and career planning.

The medical profession implies constant growth and development. In this regard, there is a growing need to introduce innovative educational technologies that allow residency students not only to master certain knowledge, but also to improve their skills in obtaining and processing large amounts of information, to develop analytical thinking and the ability to quickly make the right decisions in resident doctors.

The Hospital, providing resident doctors with assistance in developing their scientific and practical potential for planning their professional career in the future, for expanding their knowledge in various scientific fields, provides an opportunity to take an active part in the social and scientific activities of the Hospital. Supervising departments may petition and submit applications for the inclusion of resident physicians in the list of participants in various scientific conferences, seminars, and master classes held at the Hospital.

4.3.7 A medical education organization **should** have conditions and tools that provide support to a resident in the event of a professional crisis.

In case of a professional crisis related to abuse of office or fundamental disagreement with a mentor, a situation with a patient, or in case of a desire to be expelled, resident doctors can contact the Department. Resident doctors' requests are processed by specialists of the Department. All rights of the student are specified in the contract for the provision of educational services, each case is considered individually.

4.3.8 The medical educational organization **should** involve resident organizations and/or the active members of the residents in solving their problematic situations.

While forming groups of resident doctors at the beginning of the academic year, a senior person for the educational program (headman) is elected, who represents the interests of his classmates, helps the Department organize the educational process at the group level, transmits information from the administration, monitors attendance and academic performance, distributes assignments to classmates and monitors their implementation.

Depending on the nature of the issue that the resident has (emotional burnout, psychological problem, issues of interaction with mentors, other employees of supervising departments, in general with the structural divisions of the Hospital), he can seek help and advice from the Department.

On legal issues, resident doctors can get advice from specialists of the Hospital's legal department. The Hospital has a psychologist, who can also be contacted by resident doctors who need support in case of psychological problems. On personal issues, resident doctors can seek help and advice from their teachers or mentors.

4.4 Representation of residents

4.4.1 The medical education organization **must** develop and implement a policy on the representation of residents in advisory and collegial bodies (councils, committees, working groups, etc.) and the due participation of residents in formulating the mission and final learning outcomes, in developing the training program, planning working conditions, evaluating the training program, and managing the training program.

The Hospital implements the practice of including resident doctors in departmental working groups when developing or updating the EP, when approving the EP at meetings of the Academic Council. Currently, the Hospital's resident physician is included in the FOC (fatal outcome committee).

Resident physicians participate in planning the training conditions through the elective nature of the elective component. Resident physicians have the right to choose from the catalogue of new elective disciplines, in their opinion, the disciplines they need, thereby participating in decision-making in professional training and skill development regarding themselves.

The department conducts a survey on satisfaction with the educational program of residency, which the resident physician is mastering. The survey results contribute to making changes, revising

and updating the program, other documents for the formation of a highly qualified specialist at the level of vision through the eyes of a resident physician.

Resident physicians of the Hospital are included in the Academic Council of the Hospital, while having the right to vote in discussions, consideration and approval of academic issues.

4.4.2 A medical educational organization should have mechanisms to encourage the participation of resident organizations in decision-making on the processes, conditions and rules of education and training.

The hospital encourages resident physicians by assisting in publication activity in the quarterly journal "Bulletin of the MCH PAA RK", in providing opportunities for participation in national and international conferences, master classes and trainings. The IEP of a resident physician specifies the number of scientific events planned by the resident physician for the period of study. At the midterm certification, the resident physician reports on the implementation of his plan of scientific activity and provides the commission with a portfolio. In the future, upon admission to PhD doctoral studies, one of the criteria for the list of documents is the presence of scientific papers for the last three years; the entire baggage of scientific activity accumulated during the period of study in residency will only be a big bonus, characterizing the residency graduate as a clinical specialist with scientific potential. In the supervising departments, resident physicians are involved in working groups for the development and updating of the EP, and resident physicians are also included in working groups for writing a self-assessment report. Proposals on the educational process submitted by resident physicians in oral or written form are necessarily taken into account and taken into account. As an incentive for resident physicians, mentors petition for employment during the training period of the resident physician in the supervising department.

4.5 Working conditions

A medical educational organization **must**:

4.5.1 while implementing the training program, have an approved policy for financing residents both through their receipt of a scholarship and by providing Opportunities for work outside of school hours, the use of a resident motivation system and other methods of financing.

In the Republic of Kazakhstan, the training of medical personnel in residency is carried out at the expense of the republican and local budgets, at the expense of the student's own funds, the employer's funds and other funds not prohibited by the legislation of the Republic of Kazakhstan. According to the Decree of the Government of the Republic of Kazakhstan dated February 7, 2008 No. 116 "Rules for the appointment, payment and amount of state scholarships for students in educational organizations", resident doctors studying under the state educational order are paid a scholarship in the amount of 111,579 (one hundred eleven thousand five hundred seventy-nine) tenge.

. <https://adilet.zan.kz/rus/docs/P080000116>

Resident doctors are awarded a state stipend for the entire period of study, regardless of the results of the midterm assessment during the entire period of study.

Combining study with work (no more than 0.5 of the rate) in areas of activity close to his future specialty, in his free time, is permitted with the consent of the head of the OP and the head of the Department. In the presence of a specialist certificate, residents are allowed to carry out independent medical activities in public and private medical institutions.

In accordance with subparagraph 12 of paragraph 3 of Article 47 of the Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III "On Education", students have the right to incentives and rewards for success in their studies, scientific and creative activities. Based on the results of the midterm assessment, the Hospital plans to consider options for encouraging resident doctors in accordance with the Academic Policy of the Hospital.

4.5.2 ensure the participation of residents in all events organized by clinical sites and related to the training program, including patient supervision, participation in surgical operations, visiting patients at home, participation in conferences, etc.

The hospital as a whole provides access for resident doctors to provide medical care to patients in inpatient departments, outpatient clinics, in the operating room, in the anaesthesiology department,

resuscitation and intensive care under the supervision of a clinical mentor in accordance with the educational process. Resident doctors collect all clinical cases of patient management in a portfolio.

In the Hospital, when implementing EP 7R01109 "Cardiac Surgery for adults, children", a balance of all types of resident doctors' activities will be maintained. During the training, the resident physician, under the guidance of a mentor, acquires practical skills: patient supervision, documentation, participation in clinical discussions and multidisciplinary groups, assistance during surgeries, calculation of drug dosage, dermatoscopy, interpretation of IHC results, histology, participation in express biopsy, participation in topometric preparation, contouring, participation in intra-cavitary therapy, remote therapy, etc. Since resident physicians are not only students but also part of a large team, they are involved in the educational process in solving professional problems in accordance with their competencies, in the process of patient care.

Resident physicians are involved in duty shifts at the Hospital as the department's Opportunities and needs. Employees of the supervising departments draw up rotation schedules and duty shifts for resident physicians in clinical departments. When drawing up the schedule of resident doctors, the fulfilment of the calendar-thematic plan, the schedule of classes and the duty schedule of the resident doctors' mentors are taken into account. The generated schedules are approved by the head of the EP, provided for review by the resident doctors and submitted for reporting to the Department. During rotation at other clinical sites, resident doctors take up duty according to the schedule agreed upon with the assigned mentor.

In general, the Hospital does not provide emergency medical care to patients, but in accordance with the Director's Order No. 149 dated 06.03.2024, from March 7, 2024, once a week on Thursdays; emergency medical care is introduced for patients with acute coronary syndrome.

4.5.3 determine responsibility and communicate to all interested parties information on the participation and conditions for the provision of medical services by residents.

While enrolled in the Hospital residency, resident physicians together with their mentors form a list of privileges, which specifies all the functions of resident physicians that they possess and that they can use during the training process under the supervision of a mentor. The contract for the provision of educational services specifies the responsibilities of resident physicians during the training process.

4.5.4 ensure the organization of additional or distance learning for residents, where applicable, during forced interruptions in training, for example, during pregnancy, childbirth, parental leave, long-term illness, military service or business trips. In accordance with paragraph 32 of the order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 30, 2018 No. 595 "On approval of the Model Rules for the Activities of Higher and (or) Postgraduate Education Organizations" and the Academic Policy, the Hospital ensures the provision of academic leave caused by pregnancy (including maternity/paternity leave, childcare leave), illness, military service upon provision of supporting documents.

Also, in accordance with the Academic Policy, the Hospital provides for the possibility of continuing education under conditions of interruptions in education related to pregnancy (including maternity/paternity leave), illness, and military service upon provision of supporting documents.

For resident physicians reinstated from academic leave and continuing their studies, an individual training program is drawn up based on the work program corresponding to the academic year, taking into account the difference in the curriculum. If the names of the disciplines, content and number of credits coincide, the disciplines are re-credited in agreement with the supervising department. Individual terms of work are established by specialists of the Department in agreement with the mentor and are indicated in the individual training program.

When seconded for additional training, the Hospital issues an order to send a resident physician for training, provided that the training is agreed with the supervising department and the host party.

The Hospital's residency practices mobile residency at the request of the resident to study and master practical skills in certain disciplines in certain clinics. Theoretical material can be taught in a distance format, implemented on the basis of interaction between a remote teacher and a student, re-

ardless of the place or time of training using information and communication technologies; at the end of the completed cycle, the Hospital's mentor assesses the resident for mastering skills remotely.

The medical educational organization **should:**

4.5.5 ensure that the participation of residents in the provision of medical care during the training process does not dominate or is excessive to the detriment of the educational process, but complements and enhances the training program.

In the Hospital, after the enrolment of resident physicians, the supervised departments draw up a list of privileges indicating the possible practical skills and responsibilities of resident physicians, which is approved by the Deputy Director of the Hospital (for supervision). Residency training is carried out on the basis of the integration of theory and clinical practice with the involvement of resident physicians in personal participation in the provision of medical services and responsibility for activities in providing care to patients under the supervision of a mentor. During the training, an increasing degree of independent responsibility of the resident physician is ensured as he acquires skills, knowledge and experience. In clinical departments, resident physicians conduct independent examination of patients under the supervision of a mentor, perform practical manipulations according to the list of mandatory acquisition of practical skills approved by the order of the Ministry of Health of the Republic of Kazakhstan dated January 9, 2023 No. 4 "On approval of standard curricula in medical and pharmaceutical specialties". <https://adilet.zan.kz/rus/docs/V2300031672>

A resident physician manages patients under the supervision of mentors according to the list of mandatory acquisition of practical skills. Resident physicians maintain medical records in the "Informed" electronic medical record, draw up plans for examination and management of patients, control and signature are carried out by a clinical mentor or the head of the department.

Residency training includes classroom work, independent clinical work under the supervision of a mentor (ICWRT) and independent work of a resident (IWR). In the Hospital, the volume of theoretical training (classroom work) is 10%, the volume of clinical training (ICWRT) is 70%, the volume of independent training is (IWR) 20% of the curriculum. Thus, the Hospital, adhering to the State Standards of Higher Education, which states that in residency the volume of theoretical training is no more than 20% of the curriculum, strives to ensure that the working components in the work of resident doctors do not dominate the educational component / training.

The training schedule for resident doctors is drawn up from 08.00 to 16.00, from 16.00 to 18.00 IWR, and is regulated by the approved working curricula, class schedule, sanitary and epidemiological rules and regulations.

4.5.6 take into account the needs of patients, continuity of medical care and the educational needs of residents when planning shifts and the work schedule on call to patients. Resident physicians already have a diploma and a certificate of a specialist general practitioner, a therapist upon admission to residency, which give the right to provide medical care at their level. The Hospital does not provide for on-call duty for resident physicians, but during rotation, by agreement with mentors, they can take on duty in order to master practical skills in providing emergency care to patients.

4.5.7 apply an individual training program for residents under special circumstances and taking into account previous experience in providing medical care.

The Hospital can apply an individual training program for resident physicians taking into account previous work experience; the Hospital's residency provides for on-site residency at the place of residence or place of work of resident physicians. The organization submits a petition with a request to send a resident physician for on-site training in the residency due to a shortage of personnel in the organization. The resident physician writes an application, if the application is reviewed positively, an order is issued on the completion of practical training for the resident physician, and the resident physician is sent to the place of field practice for the period determined by the order of the Director of the Hospital.

4.5.8 ensure that the quality of training under the individual program and the total duration of training are not less than that of residents who have completed the full educational program in the relevant specialty.

In accordance with the Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III "On Education", distance learning at the Hospital is carried out in the manner determined by the authorized body in the field of education. Under special circumstances, resident doctors at the Hospital can switch to distance learning only on the basis of orders, letters, requests from the Ministry of Health of the Republic of Kazakhstan, the Presidential Administration of the Republic of Kazakhstan, the MCH PAA RK, and the Infection Control Service of the Hospital.

Residency training involves permanent presence at the clinical base; therefore distance learning with separation from the clinical base does not seem possible and correct. But in cases of the introduction of a state of emergency, restrictive measures, including quarantine, in the relevant administrative-territorial units (at individual facilities), the declaration of emergency situations, the Hospital will allow resident doctors to switch to distance learning in accordance with their educational trajectory, without violating the mandatory volume of mastering the educational material.

For residents with work experience, an individual training trajectory may be provided (with rotation across departments); the training trajectory is also influenced by the choice of an elective discipline.

Conclusion on standard 4:

1. Availability of internal regulatory documents of the Hospital (Residency Admission Rules, Residency Regulations, Academic Policy).
2. Availability of the Residency section on the Hospital website, Instagram page.
3. Low, affordable cost of educational services corresponding to high quality.

Identified areas for improvement:

1. Academic mobility of resident doctors of the Hospital in the Republic of Kazakhstan and at the international level.

Standard 5: ACADEMIC STAFF

5.1 Admission and selection policy

Section 1. Personnel Policy of the Human Resources Management Rules defines the management system, principles, key areas and approaches to the development of the Hospital's human resources potential, contains the main requirements for personnel management, provisions on the relationship between employers and employees, from the selection of personnel to the establishment of labour relations and termination of the employment contract. The HR policy is aimed at strengthening and developing the human resources potential by forming a team of highly qualified employees who share the provisions of the corporate culture, building an effective motivation system and creating conditions for the full development of personnel. In total, the academic staff of teachers and mentors in the Hospital is 100 employees, of which 73 employees are in the residency educational programs. The requirements for teachers of the residency program take into account the qualification requirements for staffing in accordance with the order of the Ministry of Higher Education of the Republic of Kazakhstan dated January 5, 2024 No. 4 "On approval of qualification requirements for the educational activities of organizations providing higher and (or) postgraduate education, and the list of documents confirming compliance with them." Scientific supervision of residents may be provided by specialists with the academic degree of MD, CMS, or PhD, with the highest medical category in their field of training, for whom the main place of work is the Hospital, with at least three years of scientific and pedagogical work experience and at least five years of clinical experience. Mentoring of residents may be provided by specialists with the academic degree of MD, CMS, or PhD, with the highest medical category in their field of training, for whom the main place of work is the Hospital, with at least five years of clinical experience. The share of Hospital teachers/mentors with specialist certificates in their areas of training and the highest/first medical category, with at least 5 years of clinical work experience is 100%, of which 36% (26 people) have an academic degree, including MD – 16% (12 people), CMS – 10% (7 people), PhD – 4% (3 people), master's degree – 6% (4 people).

The academic staff of EP 7R01102 “Cardiac Surgery (Adults, Children)” includes 11 specialists with certificates in the field of training and the highest/first medical category, clinical work experience of at least 5 years - 100%, of which 45% (5 people) have an academic degree, including MD – 18% (2 people), CMS – 18% (2 people), PhD – 9% (1 person).

The experts familiarized themselves with the job descriptions of the Academic staff and the Regulation on the clinical mentor, approved by the order of the director dated September 19, 2023, No. 675.

The experts were familiarized with the SOP "Rules for Human Resources Management" (HR Policy), approved by the order of the director dated October 27, 2023, No. 817. The ratio of teachers to residents is 1:3.

The motivation system for teachers and clinical mentors includes a permanent and variable part of wages, social payments, as well as non-material incentives. The Hospital carries out various activities to motivate and stimulate employees: ensuring working conditions in accordance with the labour legislation of the Republic of Kazakhstan, an employment contract, providing employees with equipment, tools, technical documentation and other means necessary for the performance of work duties; advanced training courses at the Hospital at the expense of the organization; systematic referral of employees for advanced training outside the organization in the Republic of Kazakhstan and abroad. Timely payment of wages and payment of incentive bonuses for high-quality work is carried out in accordance with the internal document approved by the order of the Director of the Hospital dated 01.02.2023 No. 65 "Rules on remuneration, bonuses and the provision of financial assistance". Incentives in the Hospital are based on the principles of legality, transparency, incentives exclusively for special personal merits and achievements, incentives for efficiency and quality of work. The Hospital is also developing a system of non-monetary motivation, including state and corporate awards (announcement of gratitude, certificate of honour, nomination for titles, medals and badges of the MCH PAA RK, MC PAA RK, DPA RK and the Ministry of Health of the Republic of Kazakhstan).

The level of remuneration for participation in postgraduate education during the implementation of the residency program is determined by payments in accordance with the internal document approved by the order of the Director of the Hospital dated 12.07.2022 No. 207 "Rules for the provision of paid educational services and the procedure for using funds received from the provision of paid educational services in the MCH PAA RK". The principles of ethics and academic honesty of teachers are reflected in the Code of Honour of the Hospital's Academic staff (order No. 250 dated 18.07.2019) and the Regulation on the clinical mentor" (order No. 675 dated 19.09.2023). During a conversation with the teachers, they confirmed their awareness of this issue. In order to verify the data of standard 5, external experts obtained the opinion of pre-teachers on the personnel policy, which includes the policy of training and development of teachers in accordance with Section 7 of the Rules of Human Resource Management "Training and Development of Personnel", the responsibility of teachers and mentors, regulated by internal documents "Regulations on the Clinical Mentor", "Regulations on the Residency". The conversation with the head of the human resources management department Kabdulinov R.T. included such questions as the percentage of teachers' degrees, the presence of pedagogical competence in the job descriptions of teachers, the combination of clinical, pedagogical and scientific activities of teachers. The answers received allowed the experts to learn about approaches to attracting employees of clinical sites for teaching in residency (in total, there are 73 such teachers and mentors), the strategy and tactics of recruiting residents, and the information support of the educational program.

While surveying teachers, it was found that the majority (80%) are completely satisfied with the organization of work and the workplace in this educational organization, but 20% are partially satisfied. In this educational organization, teachers have the opportunity to do scientific work and publish the results of R&D - 90% completely agree, 10% partially. Satisfied with the work of the HR service - 100% completely agree. Satisfied with the salary - 70% completely agree, 30% partially.

5.2 Commitments and development of teachers

In order to verify the data of standard 5, at a meeting with the head of the HR department and during interviews with teachers, experts received a positive opinion on the approaches to the develop-

ment of pedagogical competence of teachers, motivation to work with residents, and mentoring. The hospital organizes AT cycles to master pedagogical competencies:

- "Innovative technologies in education" from September 13 to 25, 2021;
- "Educational technologies in the residency training program" from November 13 to November 18, 2023;
- "Methods of assessing students' knowledge and skills, reliability, validity and fairness of assessment methods at the postgraduate level" on May 27, 2024;
- "Teaching methods, mechanisms to evaluate educational programs" on May 28, 2024.

The employees who are part of the Academic staff of the Hospital are active in clinical, teaching and research activities.

The experts determined that the faculty and residents have sufficient time for teaching, mentoring and training. The work schedule of the faculty is planned to be established in accordance with the staffing schedule. Working hours: 08.00-16.00. The faculty will conduct seminars lasting 10% of the program volume (50 academic minutes - 1 hour per day). Time for clinical reviews, clinical rounds is 70% of the program volume (7 hours per day).

The system of advanced training in the Hospital is carried out in accordance with the Thematic Plan of Advanced Training Cycles for Doctors and the Calendar Plan for Training Specialists. The experts received responses on advanced training for 11 teachers who will participate in the implementation of the educational program. These activities are financed by the Hospital. The expert checked the teachers' certificates on the following topics: Current issues in cardiac surgery, Minimally invasive cardiac surgery, Innovative technologies in education, Current issues in vascular surgery, Mentoring in an organization: communication and conflict management, Extracorporeal membrane oxygenation, Educational technologies in the residency training program, Diagnostics and treatment of cardiac arrhythmias, Interventional methods of treating valvular heart disease, Radiation diagnostics - Ultrasound diagnostics in cardiology, Diagnostics and treatment of cardiac arrhythmias, Trans catheter interventions for congenital and acquired heart defects in children and adults, Current issues of extracorporeal hem correction in intensive care, Functional diagnostics in cardiology.

The funds received from the provision of educational services are used to reimburse the costs of teaching activities to teachers/mentors in the amount of 40% of the total amount of funds received from the provision of paid educational services (order of 12.07.2022 No. 207 "Rules for the provision of paid educational services and the procedure for using funds received from the provision of paid educational services in the MCH PAA RK").

Experts found that teachers are ready to initiate research topics for future residents, stimulate the need for additional training and independent work with literature, medical documentation.

In the educational organization, there is an opportunity for career growth and development of teacher competencies - 80% of the surveyed teachers answered, and 20% partially agree with this. Studied in professional development programs - 50% less than 1 year ago, 20% during the current year, 100% more than 3 years ago, 100% more than 5 years ago, and 0% answered "I don't remember when it was."

The organization implements social support programs for teachers - 80% answered that "yes, such programs exist," 50% "I have already used this," 10% of respondents answered that there are no such programs, and 10% of respondents do not know about it.

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

Recommendations for improvement:

1) none

Standard 6: EDUCATIONAL RESOURCES

6.1 Material and technical support and equipment

Training of residents of EP 7R01102 "Cardiac surgery (adults, children)" will be carried out at the Hospital. During the rotation, residents will undergo training in specialized departments of clinical sites. The material and technical base of the educational process is maintained at a sufficient level and complies with sanitary standards, fire safety requirements. The Hospital departments implementing the EP 7R01102 "Cardiac surgery (adults, children)" are equipped with the most modern equipment that meets the necessary requirements of practical activities and the process of training resident doctors: operating rooms equipped with the OR1 system, an angiograph with a robotic C-arm "Arti-Zeego", the navigation system "Carto 3", a digital angiographic unit "Siemens Artis Zee", sets of cardiac surgical instruments, ALV, an artificial blood circulation machine, a video stand, a set for performing minimally invasive cardiac surgery, expert-class functional diagnostics devices Vivid e9, a treadmill test system CardioSoft, multispiral CT Aquilion One, 640-slice Canon Medical Systems Corporation, MRI - Canon Vantage Oriion 1.5T, Canon Medical Systems Corporation, 40-slice PET / CT machine Siemens Biograph TruePoint, 6-slice SPECT/CT machine Siemens Symbia T6, ultrasound diagnostic machines. The hospital departments have resident rooms for practical and theoretical research and self-training of residents. The following rooms are available for theoretical training: a classroom with 6 stationary computers with Internet access (electronic library), a small conference hall for 25 seats, a large conference hall for 159 seats, a hall in the department of the nuclear medicine centre for 20 seats, a training room in block C2 (2nd floor) for 15 seats, as well as a classroom for emergency care courses (BLS, ACLS, PHTLS, PALS) for 25 seats for lectures and discussions with participants. All conference rooms are equipped with stationary video equipment, as well as a portable projector and laptop for conducting classes in departments, flip charts and whiteboards.

To provide students with access to relevant professional literature, electronic databases, the Hospital has concluded a Memorandum with NJSC "Astana Medical University", a Memorandum of Cooperation with AEO "Nazarbayev University", an Agreement on library and information services for 2024 with NJSC "Republican Scientific and Technical Library". In 2024, the Hospital launched a pilot project to provide corporate access to ClinicalKey online resources.

Before starting the relevant discipline of the educational program, the resident will receive a syllabus from the teacher and become familiar with the skills that he/she must acquire and develop during the training.

The analysis of resource equipment is carried out by the department of medical equipment and medical gases. The department's specialists constantly work on evaluating and updating the equipment and facilities of clinical departments, and draw up a list of medical equipment subject to regular inspection. As part of identifying wear and tear and updating the material and technical base in the Hospital, a Plan for the phased renewal of fixed assets, material and technical base, as well as engineering systems of the Hospital for the coming year is drawn up.

In general, the state of the material and technical base of the Hospital and the equipment of its educational and laboratory fund allow for the educational process in the residency to be carried out in accordance with the requirements of the current legislation of the Republic of Kazakhstan.

6.2 Clinical bases

A review of the resources showed that they correspond to the goals and objectives of the educational activities, for example, the following clinical bases of the Hospital were visited: surgical department No. 5 (cardiac surgery) - 16 beds, surgical department No. 9 (arrhythmology) - 12 beds, therapeutic department No. 2 (cardiology) - 33 beds, angiosurgery department - 14 beds, X-ray surgery department, functional diagnostics department, CT and MRI department, clinical and pharmacological department, intensive care unit - 16 beds, and the employees of the educational organization ensure collegial and ethical relationships with the medical staff, the management of the clinical base to achieve the final outcomes of the residents. A sufficient number of subject patients, modern equipment and demonstrates accessibility to students, teachers provide quality training in compliance with ethics and deontology.

During a visit to the clinical base of JSC "National Scientific Medical Centre", experts conducted a survey of resources, their compliance with training programs, and accessibility for teachers and residents, how modern this equipment is and meets the needs of students and practical health care.

The Children's Cardiac Surgery Centre is one of the departments of JSC "National Scientific Medical Centre". The department is located in a separate two-story building at 27 Kabanbay Batyr Street. It provides cardiac surgery to patients with congenital heart defects. Includes departments of cardiac surgery, cardiac resuscitation and anaesthesiology, X-ray endovascular cardiology, there are also 2 echocardiography rooms, an X-ray laboratory, its own clinical laboratory, a training room, a conference room with a video projector and the Internet. In order to validate the implementation of the self-assessment report data and obtain evidence of the quality of the programs, interviews were conducted with residents of other specialties. The experts asked questions about satisfaction with training, sufficient time for patient supervision, work with medical documentation, satisfaction with teaching methods and the qualifications of teachers, social and moral support for residents who need it, participation in the scientific club "Council of Young Scientists", and the availability of resources of international databases of professional literature. In general, residents are satisfied with training, assessment methods, and purposefully entered this organization, since they believe that the educational organization has good resources, image and international connections. In order to improve practical skills, the Hospital has a Training Centre, which includes a training centre for robotic surgery (dry and wet laboratory), a training neurosurgical class, an expert centre for cryoablation, a training class for emergency care courses (BLS course). Training is conducted according to international standards of the American Heart Association (AHA) by trained instructors of the Hospital, who have instructor certificates from the AHA for emergency care courses BLS, ACLS, PHTLS, PALS.

Residents of other specialties showed their commitment to the organization of education, were active in answering questions from external experts, demonstrated their judgment on the organization of training, assessment of their skills, advisory support, opportunities to participate in research, financing, demonstrated proficiency in English when answering questions from a foreign expert Uryaseva O.M. The experts studied the documents of the residents (portfolio, results of the assessment of residents - checklists, results of the survey of residents).

6.3 Information technology

The hospital has information and communication technologies and electronic media:

1. GroupWise - Mail server.
2. Mail KPK - File Server (for file exchange).
3. Messenger - Message server.
4. KavServer - Server for antivirus.
5. InfoMed - Health information system.
6. MIS - Medical information system.
7. PrintServer - print server (there are large printers that are in some departments).
8. WSUS - server for updating the Windows system.

Information and communication technologies are electronic correspondence in WhatsApp, Instagram chats. The necessary information about the Hospital residency is freely available and on the official website of the Hospital <https://bmcudp.kz/ru/>.

The educational process in the residency is reflected in the AIS "Platonus", which was implemented to automate process management and is located on the Hospital server and was fully commissioned in 2023. During independent study, residents study in a classroom equipped with stationary computers with Internet access with access to modern information and educational resources (multi-media textbooks, various databases, educational sites and other sources). Residents can use professional literature and electronic information resources at any time: <https://elib.amu.kz/ru/elib/>, <https://elibrary.ru/defaultx.asp>, <https://booksmed.info/>, <https://pubmed.ncbi.nlm.nih.gov/>, <http://www.medinfo.ru/>, <https://kitap.kz/>.

In all departments of the Hospital, to simplify the interaction of structural divisions and business communication with colleagues, telephone communication lines with internal numbers are installed,

corporate GroupWise mail is used for electronic correspondence, and KPK mail is used to store the documentation of structural divisions.

Access to patient data and the healthcare information system is carried out through the universal automation system of medical organizations InfoMed. The resident will fill out the necessary documentation under the supervision of the teacher.

Such elements of distance learning methods as Zoom, WebEx, Since 2024, telemedicine has been introduced on the basis of the Hospital in order to improve and develop remote medical services (Order No. 191 dated 03/28/2024) and the Rules for the organization and provision of remote medical services have been developed. At the same time, the ethics documented in the Resident Physician's Code of Honour are observed; residents are aware that all innovations in the field of information technology require a high-quality legal and ethical basis, affect fundamental human rights, concerning the protection of copyright, intellectual property, privacy, responsibility, security and community of information.

6.4 Clinical teams

Residents of EP 7R01102 "Cardiac surgery (adults, children)" will work in a team with various highly qualified specialists in their field, learn not only the collegiality necessary for further work, but also significantly improve their knowledge in related specialties. They will develop the ability to direct and train other healthcare professionals, nursing staff who participates in the provision of medical and diagnostic and emergency care.

Resident physicians will participate in joint rounds with heads of departments, mentors, in discussions of patient treatment tactics at daily conferences, in consultations, assist in various surgical operations, under the guidance of clinical mentors, independently perform a wide range of various manipulations and procedures, and consult patients of other specialized departments. Resident physicians, daily performing medical work in the structural divisions of the hospital, outpatient clinic will undergo practical training in the basics of medical ethics and deontology, being in constant contact with doctors, mid-level junior medical personnel of the clinic, which allows them to learn collegiality, master the high title of doctor of the Republic of Kazakhstan.

The survey was not conducted, since this was the primary accreditation and there is no contingent of cardiac surgeon residents.

6.5 Medical scientific research and achievements

The Department of Science and Gerontology is a structural subdivision of the Hospital, which is designed to implement and develop fundamental and applied scientific research based on cooperation with leading scientific centres, government agencies of the Republic of Kazakhstan and international organizations.

Since 2011, the Hospital has been implementing scientific research with subsequent implementation in practical activities. To date, 8 scientific projects have been successfully implemented at the Hospital, and 4 projects are being completed this year.

The Hospital promotes the participation of residents in medical scientific research devoted to the study of the state and quality of health of the population and the healthcare system. The Hospital periodically hosts conferences, which provide for the participation of residents with reports. The Hospital organizes master classes, seminars, trainings with the involvement of domestic and foreign leading specialists, in which the participation of residents is also welcomed.

In order to enhance the professional growth of the Hospital residents, the Scientific Club "Council of Young Scientists" operates, within the framework of which seminars, master classes and conferences are held, as well as a round table on current topics of scientific research.

The Hospital provides an opportunity for residents to master competencies in the field of scientific research. During the training, resident doctors participate in the scientific work of the Hospital. Resident doctors of the Hospital are invited to participate in conferences, information about conferences and forums is periodically sent to chats.

They perform such types of work as publications in scientific journals, speeches at scientific and practical conferences of various levels with speeches and reports, participation in competitions for

young scientists. All information about scientific work is included in the resident's portfolio, the structure of which is based on the Regulations on the residency of the Hospital. The hospital, understanding the importance and necessity of developing new scientific technologies and introducing medical science into healthcare practice, takes this into account and an important condition when drawing up the IEP of a resident is planning scientific activities in residency.

Residents perform research outside of school hours in the form of analysis and review of articles according to evidence-based medicine databases, processing of research results with subsequent presentation at student conferences and conferences of young scientists. Involving residents in research activities develops their researcher's merits (qualities), teaches them research methods and skills used in modern scientific practice of compulsory and elective disciplines.

Residents' research work will also be carried out in the idea of in-depth development of practical skills in the field of cardiac surgery.

6.6 Expertise in the field of education

The policy for conducting quality assessment is provided for by the internal documents of the Hospital, the Academic Policy and the Regulation on the internal system for evaluating the quality of education of additional and non-formal education programs and residency.

EP 7R01109 "Cardiac surgery for adults and children" was evaluated at the very initial planning stage at a meeting of the supervising department when the OP was presented by the working group of developers. It was reviewed by external representatives of practical healthcare: the head of the cardiac surgery department of City Multidisciplinary Hospital No. 2, cardiac surgeon of the highest category A.V. Smolensky and cardiac surgeon of the Pavlodar Regional Cardiology Centre, PhD A.B. Albazarov. It was reviewed and evaluated at a meeting of the SCC. It was evaluated when registered in the Register of the Bologna Process Centre of the MSHE of the RK. In the future, when implementing the EP, it is planned to provide feedback (questionnaires) from residents, faculty and employers to improve the EP and the curricula of disciplines, as well as to analyse the academic achievements of the resident.

The employees of the Department of Professional Education conduct annual monitoring of the quality of educational programs by surveying residents, teachers, mentors, graduates, employers. Based on the results, an analysis is carried out and problematic issues are identified and corrective actions are determined.

Analysis of the survey of resident doctors of the Hospital as of September 16, 2022 showed that resident doctors want to master more practical skills, use their own library, study in a classroom with computers, and be sent on rotation to other clinical sites. The department and clinical departments took their wishes into account. Classrooms were allocated, rotation is carried out, an application for the purchase of literature was formed (the departments have their own literature).

An analysis of the survey of resident doctors of the Hospital as of 10.01.2023 showed high satisfaction with the learning process.

An analysis of the survey of resident doctors of the Hospital as of December 2023 showed high satisfaction with the learning process, learning conditions, equipment of departments, relationships with teachers and mentors.

Constant and regular monitoring of the residency program makes it possible to track whether the adjustments made to the educational process were effective based on the previously conducted evaluation of the program (analysis of academic performance, attendance, implementation of the individual educational program).

The mechanisms for motivating and developing the interest of employees and teachers in conducting research in the field of postgraduate education are stimulation of the activities of the Academic staff. Monetary rewards are paid for participation in scientific research and their results (publications, patents, author's certificates, monographs, teaching aids, implementation certificates, etc.). This is documented by the order of the director dated 01.12.2022 № 462 "On the implementation of the system of motivation of specialists for the development of scientific and innovative activities". Also, highly qualified teachers of the Hospital are involved as external experts, which generally contribute to improving

the quality of medical education in the Republic of Kazakhstan, the exchange of positive experience. Head of EP 7R01102 "Medical Genetics" Abildinova G.Zh. is an expert of the NCIE for the examination of examination materials of residency graduates in the direction of Medical Genetics. Head of EP 7R01101 "Radiology" YelshibaevaYe.S is an expert of the Bologna Process Centre of the MSHE of the RK for the examination of educational programs of residency in the direction of Radiology.

6.7 Training in other institutions

The academic policy for training residents includes the possibility of training in alternative organizations if the existing clinical bases do not cover all the topics of the educational program. The training of residents in the specialty "Cardiac Surgery for Adults and Children" is carried out at the Hospital, where there are clinical departments in the direction of training. Such disciplines of the educational program as Outpatient and Polyclinic Cardiac Surgery (Paediatric), Congenital Heart Defects residents will study in the Children's Cardiac Surgery Centre of JSC "National Scientific Medical Centre". The preparation of scientific publications will be carried out under the guidance of a teacher and does not require additional bases for training. However, residents can participate in academic mobility within the country, for example, an agreement on academic mobility has been concluded with NJSC "Astana Medical University", a memorandum of cooperation with JSC "Research Institute of Cardiology and Internal Diseases" and abroad, since there are agreements with partner clinics. Currently, 1st year residents of the EP 7R01106 "Otolaryngology for Adults and Children" Suleimenova N. and Rinatova K. are undergoing foreign clinical practice at the Asan Medical Center (Republic of Korea) from May 7 to June 28, 2024, based on the Memorandum.

9 agreements and 7 Memorandums have been concluded with organizations, universities, associations, including 3 Memorandums with foreign clinics. For example, in the specialty of the accredited educational program, international cooperation will be carried out with the Leipzig Cardiology Centre, the ASAN Medical Centre of the Republic of Korea, and the Samsung Medical Centre of the Republic of Korea.

The Hospital's teachers actively participate in national and international events. Over a period of 5 years, 3 teachers were trained abroad in the specialty "Cardiac Surgery for Adults, Children" on the topics: "Master class on bifurcation stenting" (Lithuania), "Improving the organization of medical care in the anaesthesiology and resuscitation department in accordance with international standards" (Spain), "Qualification of equipment and validation of radiopharmaceutical production processes" (Russia).

Conclusions of the EEC by criteria. Comply with 18 standards (including 11 basic, 7 improvement standards): fully - 17, partially - 1 (no library), do not comply - 0

Recommendations for improvement:

- 1) Creation of a library of specialized literature on cardiac surgery.

Standard 7: EVALUATION OF THE EDUCATIONAL PROGRAMME

7.1 Monitoring and evaluation mechanisms

The Department of Professional Education of the MCH monitors the EP 7R01109 "Cardiac Surgery (Adults, Children)", regularly evaluates not only theoretical but also practical skills, and controls the entire educational process.

Responsibility for organizing and coordinating the implementation of the EP 7R01109 "Cardiac Surgery (Adults, Children)" is assigned to specialists of the Department of Professional Education of the MCH. Specialists prepare educational and methodological documentation; plan the educational process; draw up a class schedule; are responsible for the selection of academic staff in accordance with qualification requirements; monitor the improvement and development of the competencies of teachers/mentors, organize advanced training cycles; provide resident doctors with rotation in clinical bases for the period of certain discipline cycles; systematize the educational process in the AIS "Platonus".

The implementation of the educational program 7R01109 "Cardiac Surgery (Adults, Children)" at the Hospital will be carried out by cardiac surgeons of the Hospital in accordance with the qualification requirements.

The educational program "Cardiac Surgery (Adults, Children)" was developed by a working group, which included potential teachers/mentors, cardiac surgeons of the Hospital and external stakeholders - representatives of practical healthcare in accordance with the State Compulsory Educational Standard of Postgraduate Education in the specialty 7R01109. Head of the program is PhD Ydyrysheva Aray Keneskanovna.

The prepared educational program was discussed at a meeting of the teaching staff in the specialty 7R01109 "Cardiac surgery for Adults and Children" of the surgical department No. 5 (cardiac surgery and vascular surgery) of the MCH PAA RK (minutes No. 2 dated February 20, 2023). Then the educational program was reviewed by the cardiac surgeon of the Pavlodar Regional Cardiology Centre, PhD Albazarov A.B. and the head of the cardiac surgery department of City Multidisciplinary Hospital No. 2, cardiac surgeon of the highest category Smolensky A.V., who noted that the presented educational program contributes to the formation and improvement of professional competencies in cardiac surgeon residents necessary for the implementation of professional activities in the specialty of "Cardiac Surgery for Adults and Children".

Subsequently, the residency program was approved at a meeting of the SCC of the RSE "The Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan" on the REM (minutes No. 2, dated 04/27/2023).

EP 7R01109 "Cardiac Surgery (Adults, Children)" was included in the Register of Educational Programs of Higher and Postgraduate Education of the Bologna Process Centre of the MSHE of the RK, which confirms its compliance with the requirements and regulations of the Republic of Kazakhstan.

Residency EPs are discussed with all interested parties:

- are developed in accordance with the Procedure for developing EPs of the Academic Policy of the Hospital;
- are agreed upon with representatives of practical healthcare through peer review and feedback;
- undergo examination in the Register of the Bologna Process Centre of the MSHE of the RK;
- by feedback through a survey of residents;
- by means of feedback through employer surveys and employment monitoring;
- by consideration, discussion and approval of the EP at meetings of the collegial bodies of the Hospital.

The quality of the educational program is evaluated by the internal audit of the professional education department of the Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan through analysis and surveys of residents and employees of the department. In addition, the hospital has concluded agreements, memorandums with leading universities, centres and clinics of the country and foreign countries, which allows for timely adjustments and improvement of the content of the educational program.

When assessing the program, the goals and objectives of training, the final learning outcomes (through assessment of residents, independent examination) are taken into account. The process of implementing the educational program is assessed through feedback from residents and teachers.

The assessment of approaches to the admission of residents is carried out by preparing materials for the entrance exam (exam questions, clinical tasks, psychological stability tests, etc.), analysing the resumes of candidates and their average grade upon graduation from the medical university.

The selection and compliance of teachers and teaching methods is also carried out through feedback from residents.

The assessment of the methods for assessing the knowledge and skills of residents in cardiac surgery will be carried out by conducting midterm and end-of-course assessment.

The assessment of the sufficiency and quality of educational resources is carried out by the Department of Professional Education (Head is Yerzhanova F.N.), which shows the presence of a good

level of preparedness of educational resources and a clinical base for training cardiac surgeon residents. In the process of assessing the quality of educational programs of the residency, it was established that along with achievements (compliance with the standards of training in residency in cardiac surgery), there are a number of problems, including the lack of full-time positions of teachers of cardiac surgeons and a library with literature on the profile of the specialty in the staff of the department of professional education.

7.1.2 define and implement mechanisms for evaluating the program.

In the Hospital, monitoring of the quality of the EP, WC, and CED is carried out by the SCC, the Academic Council.

Monitoring of academic performance and attendance is carried out by teachers / mentors, regulated by recording data in an electronic journal.

Monitoring of the implementation of the IEP of the resident physician is carried out at meetings of the supervising departments through discussions with the mentor and the resident physician him/herself.

Monitoring of the mastery of the educational material by the resident physician during the academic period is the conduct of interim assessment at the end of the semester.

Monitoring of the assessment of knowledge and practical skills is carried out by an independent assessment of the NCIE during the final certification. As one of the interested parties, resident physicians will participate in the compilation of the individual educational program, in the selection of elective disciplines of the EC, in the selection of a clinical base and a mentor; in the future, when updating the EP, it is planned to include resident physicians in the working group. Also, as interested party, practical healthcare specialists are involved in reviewing the EP; they act as potential employers of graduates of the EP.

7.1.3 conduct program evaluation taking into account the mission, expected learning outcomes, educational program content, teaching methods, knowledge and skills assessment, sufficiency and quality of educational resources.

Evaluation of EP 7R01109 "Cardiac Surgery (Adults, Children)" involves monitoring the compliance of the educational program, individual educational program, and teaching and methodological complex with the requirements of national legislation; monitoring compliance with the qualification requirements of teachers/mentors; monitoring compliance of educational resources; monitoring learning outcomes, attendance, academic performance, quality of mastery of practical skills; monitoring stakeholder feedback.

Responsibility for the EP evaluation policy lies with the relevant officials at various stages of training (Department, faculty of supervising departments, deputy director for strategic development, science and education, deputy director for clinical work).

Monitoring of the EP implementation and control over the achievement of the final LO is carried out continuously, within the framework of the activities of the supervising departments, Department, and SCC of the Hospital. When updating EP 7R01109 "Cardiac Surgery (Adults, Children)", the Hospital plans to take into account the opinions of medical organizations acting as stakeholders (employers). The CED EP 7R01109 "Cardiac Surgery (Adults, Children)" is being developed in accordance with the goals and objectives of stakeholders, both external and internal. The implementation of the EP will be achieved by creating, maintaining and continuously improving conditions that guarantee the availability, safety and high quality of medical services provided to the population; improving the competence, knowledge and acquisition of practical skills by resident physicians in the cardiac surgery profile.

7.1.4 conduct an assessment of the program in relation to the resident admission policy, the needs of the healthcare system and medical education, the process of implementing the educational program, the progress of residents, the qualifications of teachers, identified problems and shortcomings. The hospital will also evaluate the EP in the interests of satisfying the need in the healthcare system for training qualified medical specialists. The personnel policy of the Hospital is to satisfy the need of diagnostic and consultative departments for personnel. The content of the residency EP, teach-

ing and assessment methods is assessed based on feedback data through peer review from practicing employers. In order to ensure high-quality implementation of the training of resident doctors, teachers are constantly working to improve the content of the EP in accordance with the development trends of the modern healthcare system, and analyse programs with peer review from employers.

The educational process, methods of assessing students, and the progress of students are assessed by performing the individual educational program of the resident doctor, as one of the stakeholders, who also participates in monitoring the implementation of the EP. Based on the choice of an elective discipline and through feedback, resident doctors also assess the EP. The choice of EC leads to an increase in the level of individual educational achievement, which is manifested in preparation for a conscious and responsible choice of their specialty, the development of skills and methods of activity in resident doctors aimed at solving practical problems, creating conditions for self-education, skills and abilities of independent work and self-monitoring of their achievements.

The hospital trains academic staff, improving their professional level. It is planned to train in teaching methods, mastering the pedagogical competencies of clinical mentors. The Hospital provides for a survey of teachers / mentors.

Based on the analysis of the survey results, adjustments will be made to the educational process: disciplines, syllabuses, teaching and assessment methods will be updated, a list of clinical rotation bases for resident doctors will be compiled). An analysis of the survey of resident doctors of the Hospital as of September 16, 2022, showed that resident doctors want to master more practical skills, use their own library, study in a classroom with computers, and be sent on rotation to other clinical sites. The department and clinical departments took their wishes into account. Classrooms were allocated, rotation is carried out, an application for the purchase of literature was formed (the departments have their own literature).

An analysis of the survey of resident doctors of the Hospital as of January 10, 2023 showed high satisfaction with the learning process.

An analysis of the survey of resident doctors of the Hospital as of December 2023 showed high satisfaction with the learning process, learning conditions, equipment of departments, relationships with teachers and mentors.

Continuous and regular monitoring of the residency program makes it possible to track whether the adjustments made to the educational process based on the previously conducted program evaluation (analysis of academic performance, attendance, implementation of the individual educational program) were effective.

7.1.5 ensure the participation of stakeholders in the program evaluation and that the relevant evaluation results are aimed at improving the educational program.

The hospital guarantees the participation of stakeholders in the evaluation of program 7R01109 "Cardiac Surgery (adults, children)", monitoring of the program, periodic updating of the program. Monitoring will be carried out by stakeholders: students, teachers, mentors, collegial bodies of the Hospital, external parties of practical healthcare when reviewing the program, they also act as potential employers of graduates of the program.

7.1.6 The medical educational organization should ensure transparency of the process and results of the educational program evaluation for the management and all stakeholders.

The Hospital makes the process and results of the evaluation of the EP 7R01109 "Cardiac Surgery (Adults, Children)" transparent and accessible through monitoring procedures and collecting feedback from stakeholders in an open form. The teaching and assessment methods used for the EP are clearly formulated in the Academic Policy and are available to all teachers/mentors and resident physicians; they are also informed about the forms and volumes of assessment that they will undergo, about the expected LO.

The necessary information is posted on the Hospital website, in the mail of the Hospital's CRC.

7.2 Feedback from teachers and residents

7.2.1 The medical education organization **must** develop mechanisms for collecting and analysing feedback on the quality of the educational program from teachers, residents, employers and use the results of the feedback analysis to improve the educational program.

The Department will work on collecting feedback from teachers/mentors and resident physicians to determine their level of satisfaction with the content of the EP 7R01109 "Cardiac Surgery (Adults, Children)", organizing monitoring in the form of a questionnaire, appeals to the Head of the Department.

The Hospital has a Trust Box "For letters and appeals to the Director of the MCH PAA RK" for collecting feedback, where resident physicians can incognito leaves their suggestions, wishes and complaints. An important role in assessing the OP is played by monitoring the achievement of the final training goals by residents.

The Department is developing a Work Plan, which also indicates the survey plan, where it is prescribed who and when, in what form (paper, AIS "Platonus", Google form) will be surveyed. The plan is approved by the Deputy Director for Strategic Development, Science and Education.

Currently, the Hospital is conducting a survey for teachers/mentors, employers, residency graduates. A survey is conducted for resident physicians on the topics: "Satisfaction of resident physicians with the training process", "Satisfaction of resident physicians with research work", "Satisfaction of resident physicians with the creation of conditions for personal development and education".

The results of the study of feedback from stakeholders are announced and discussed at meetings of departments and the Department.

Based on the results of the evaluation of the EP, the Department develops measures to improve the activities. The obtained data from the feedback analysis and the monitoring results are used to improve the training program for resident physicians; if necessary, changes and additions are made to the EP.

7.2.2 A medical educational organization should have approaches to involving teachers and residents in planning the evaluation of the program and using the evaluation results to improve the program.

Hospital teachers/mentors are involved as experts to examine teaching methods and evaluate resident physicians for compliance with training requirements and the competencies obtained in accordance with the course of study. Resident physicians contact the Department, where they receive answers to their questions regarding the terms of the EP implementation. Representatives of resident physicians are included in working groups for program development in supervising departments, where they participate in discussing the implementation of the residency EP. In general, the use of feedback contributes to a better understanding of the current needs of students and teachers, and allows for the development of plans for further improvement of the quality of graduate training.

7.3 Results of residents and graduates

Currently, there are no graduates of EP 7R01109 "Cardiac Surgery (Adults, Children)".

Recruitment and training of residents in the educational program in the specialty 7R01109 "Cardiac Surgery (Adults, Children)" will be held for the first time in August 2024.

However, in general, the Hospital has a graduation of EP 7R01101 "Radiology" (2021, 2022, and 2023). The results of the end-of-course assessment are presented in the reports of the chairmen of the Final Attestation Commission and are heard at a meeting of the SCC of the Hospital. Analysis of the IA results: 2021: excellent - 1 (33%), good - 2 (67%); 2022: excellent - 7 (100%); 2023: excellent - 1 (13%), good - 7 (87%).

Upon completion of training in EP 7R01109 "Cardiac Surgery (Adults, Children)", graduates will receive a certificate of completion of residency with the assignment of the qualification "Adults, Children Cardiac Surgeon" and a specialist certificate in the field of training, on the basis of which they have the right to be employed in practical healthcare.

7.3.2 A medical educational organization must determine and apply mechanisms for assessing the residency program, using the collected information on the clinical practice of graduates.

The hospital annually monitors the qualifications of its young specialists. This monitoring provides feedback on clinical training from the employer, using the criteria for the effectiveness of training. The hospital monitors the level of training of graduates through feedback from employers, which is carried out in the form of a questionnaire. Employers of graduates are surveyed on satisfaction with the training of specialists. The analysis of the results showed that all employers are quite satisfied with the quality of both theoretical and practical training of the Hospital graduates, their ability to apply practical and communication skills in further practical activities and self-education.

7.3.3 The medical educational organization should provide approaches to informing about the results of the assessment of the clinical practice of residents and graduates to persons responsible for the admission of residents and planning the educational program.

In the Hospital, the structural unit responsible for admission to residency, for consulting students is the Department, which monitors the continuity of educational levels, pursues the implementation of the needs of practical health care in the framework of training medical specialists, paying special attention to the previous basic medical education of applicants. At the stage of admission and selection of candidates for residency, at the stage of training in residency, the Department is always in touch, consults interested parties on issues of the residency program, informs about the results of the assessment of the clinical practice of students.

Teaching and assessment methods are clearly formulated and available to all teachers and residents; upon admission, residents are informed about the forms and volumes of assessment that they will undergo, as well as what is expected of them; the assessment criteria used correspond to the expected learning outcomes and are available to everyone.

The clinical departments of the Hospital are responsible for the development and planning of the EP. While analysing the results of monitoring the educational process, the Department informs the developers of the program about the points that should be paid attention to (dissatisfaction with the quality of teaching, assessment methods, changes and additions to the LSI RK).

The Hospital website presents videos, reviews, where there are reviews of the work of doctors-graduates of the residency. The results of the final assessment of residents, conducted by the National Centre for Independent Examination (NCIE), play an important role in the evaluation of the educational program.

Analysis of the academic performance of residents in each discipline is carried out separately by teachers and mentors, and then discussed at department meetings.

7.4 Involvement of stakeholders

The Department of Professional Education of the MCH should ensure the participation of key stakeholders in the program for monitoring and evaluating the educational program in cardiac surgery residency:

1) Register of higher and postgraduate education programs - examination, inclusion, updating of the Hospital's residency programs; interested parties can view the residency programs in the Register of higher and postgraduate education programs of the Bologna process of academic mobility. All information is also posted on the website in the Department - Residency. <https://bmcudp.kz/ru/education/npr-license/rezidentura.html>

- 2) NCIE - independent assessment of knowledge and practical skills of resident doctors;
- 3) Clinical bases - reports of mentors on rotation of resident doctors of the Hospital;
- 4) Employers - participation in a survey to analyse satisfaction with the training of specialists by the Hospital;
- 5) Representatives of public associations of doctors - scientific and practical conferences;
- 6) Department - constant feedback in the form of questionnaires and interviews, participation in various events of the Hospital;
- 7) Teachers/mentors - development, updating of the EP, teaching and assessment methods;
- 8) Resident doctors - participation in questionnaires, in working groups of departments.

The Department of Professional Education has the following approaches to involving teachers and residents in the evaluation of the educational program and monitoring its implementation. For this purpose, an electronic platform for assessing the knowledge of residents "Platonus" has been introduced. Cardiac surgery residents will be included in the advisory body "Academic Council" and "Quality Council" and will participate in the discussion of all issues of the educational process. The results of the assessment of the educational program are announced at a meeting of the Academic Council.

Interviews with 7 employers were conducted offline (Astana: Dun A.P., Berestyuk I.N., Saduakassova A.B.) and online (Kyzylorda: Gazizov M.B., Kainarbaeva G.K., etc.) and included questions such as: satisfaction with the basic knowledge and skills of residents, providing the department and residents with the necessary resources for practical training and the formation of clinical thinking, problems of interaction with departments and universities in general, 100% employment of residency graduates, proposals for further training of target residents at the Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan with subsequent employment in the Health Department of the relevant region.

7.5 The procedure for approving educational programs

The professional education department has established a system for documenting the educational process, which includes the preparation and approval of the educational program for cardiac surgery residency in accordance with the State Compulsory Educational Standard of Postgraduate Education in the specialty 7R01109 "Cardiac Surgery for adults, children". The interested parties involved in approving the educational program are cardiac surgeons and the professional education department of the MCH.

During the accreditation, we were familiarized with the compliance of the presented educational program with the material and technical equipment of the clinical base of the MCH, the availability of educational resources and patients in the cardiac surgery profile, the possibility of their full examination and treatment in the cardiac surgery profile. In addition, it is planned that residents in a team with cardiac surgeons will travel to the regions of the country to select patients in the profile of the declared specialty for their examination and treatment at the MCH.

EP 7R01109 "Cardiac Surgery (Adults, Children)" was approved at the meeting of the SCC of the Hospital, Protocol No. 2 dated April 27, 2023.

The developers defined the expected learning outcomes as the training of highly qualified independent specialists in the field of cardiac surgery with the integration of knowledge and fundamental principles of cardiac surgery into daily clinical practice, taking into account the latest global achievements in the field of cardiac surgery, creating conditions for supporting resident physicians in research endeavours and instilling the necessary elements of success for a career in cardiothoracic surgery, including objectivity, integrity, self-motivation and a sense of responsibility.

Mastering the expected learning outcomes will serve as a reason for obtaining an official certificate of completion of state-issued residency with the assignment of the qualification "Adults, Children Cardiac Surgeon", which will be recognized at the national and international levels. The purpose of training in the residency of EP 7R01109 "Cardiac Surgery (Adults, Children)" is to prepare and provide the healthcare industry with qualified cardiac surgeons.

The final training outcomes of resident physicians of EP 7R01109 "Cardiac Surgery (Adults, Children)" are aimed at mastering general key competencies and professional competencies and are spelled out in the OP. The learning outcomes are formulated both for the entire EP and for each discipline. To achieve them, resident physicians will acquire theoretical knowledge and practical skills in the disciplines of the compulsory component (CC) and the disciplines of the elective component (EC), which are developed taking into account the specifics and focus, strengths of the teachers / mentors of the supervising departments of the Hospital.

Since 2024, the Academic Council has been functioning in the Hospital, whose powers include consideration and approval of issues of educational activities of the Hospital. The composition of the Academic Council is approved by the order of the director.

7.5.2 The medical education organization **should** develop and implement a system for quality control and monitoring and compliance of clinical sites, material and technical equipment and other educational resources, residency program specialties, using various established procedures, including site visits.

Quality Management and Patient Safety Service is a structural subdivision of the Hospital that carries out activities to manage the quality of medical services at the Hospital level, standardize the procedures for the activities of structural subdivisions, prepare for accreditation of Hospital employees for compliance of their activities with the requirements of national and international accreditation standards, ISO 9001-2016 RK standards in order to improve the quality management system. In its daily activities, the service is guided by the Code of the Republic of Kazakhstan "On Public Health and the Healthcare System", LSI of the Ministry of Health of the Republic of Kazakhstan, the Presidential Administration of the Republic of Kazakhstan, the Medical Centre of the Presidential Administration of the Republic of Kazakhstan, orders of the Hospital, provisions and requirements of the quality management system (QMS), requirements of national and international JCI standards, ISO 9001-2016 RK standards. <https://drive.google.com/drive/folders/1otxIIuwXL6k3r8ezNRdih-g1QoAWfV1D?usp=sharing>

Daily tracers and audits are carried out in structural divisions, based on the results of which corrective measures and proposals on organizational issues are made. Standards of operating procedures are revised and additional training is conducted for employees. The Hospital has coordinated work on quality control of medical care provided, and monitoring of compliance with national and international accreditation standards is carried out on an ongoing basis. Based on the results of the work carried out by the Quality Management and Patient Safety Service, regulatory documents are created that contribute to improvements and elimination of comments in medical activities. For example, within the framework of the order of the Director of the Hospital dated 22.05.2020 No. 168 "On conducting a patient survey", an assessment of patient satisfaction was conducted.

Conclusions of the EEC by criteria. Comply out of 10 standards (including 7 basic, 3 improvement standards): fully - 9, partially - 1, do not comply - 0.

Recommendations for improvement:

- 1) introduction of full-time positions of teachers in cardiac surgery
- 2) creation of a library with literature on cardiac surgery.

Standard 8: MANAGEMENT AND ADMINISTRATION

8.1 Management

The implementation of EP 7R01109 "Cardiac Surgery (Adults, Children)" will be carried out in accordance with the state license for the right to conduct educational activities in residency. EP 7R01109 "Cardiac Surgery (Adults, Children)" was developed in accordance with the State Compulsory Educational Standards of the Republic of Kazakhstan, Typical educational programs and residency plans, qualification requirements of the industry qualification framework, taking into account the needs of the healthcare system and society, with the mandatory achievement of the final LO, based on the principles of scientific methodology, evidence-based practice and experience, feedback.

In order to implement the residency EP, the Hospital is guided by the LSI of the Republic of Kazakhstan and the approved internal documents of the Hospital, starting from the stage of admission of resident doctors and until the completion of training. While forming the contingent of students, the personnel and logistical Opportunities of the Hospital are taken into account.

Transparency of the management of the residency program in the Hospital is ensured by the functioning of a number of mechanisms, which include:

- the presence of the residency program, the structure of which includes the competencies of the graduate and the LO, the WC and the assessment of the achievements of students, the resources neces-

sary for the implementation of the program, scientific achievements, academic staff, the graduate end-of-course assessment procedure, approved by the SCC and included in the Register of the Bologna Process Centre of the MSHE of the Republic of Kazakhstan;

- the presence of internal regulatory documents governing the process of implementing the residency program;

- the presence of collegial management bodies, including the employees of the Hospital, resident doctors, representatives of practical healthcare;

- publication of information on the Hospital website.

The management system of EP 7R01109 "Cardiac Surgery (Adults, Children)" will be implemented based on the Hospital Charter, structure, Regulations on departments and job descriptions. The deputy director for strategic development, science and education is responsible for the strategy for the development of postgraduate education.

The implementation of EP 7R01109 "Cardiac Surgery (Adults, Children)" will be controlled by the Scientific and Consultative Council, the Academic Council, carried out in the departments and out-patient clinic of the Hospital, external clinical bases, and supported by the Department.

The management of the EP will be carried out depending on the tasks and functions of the structural divisions, on the subordination and job responsibilities of the Hospital specialists:

- 1) Clinical Department - Department - SCC / Academic Council - Deputy Director - Director.
- 2) Division - Deputy Director - Director.

The transparency of the management and decision-making system is ensured by the minutes of the meetings of the advisory bodies with subsequent communication to all employees of the Hospital. The educational process for residency in the MC is managed by the MCH Professional Education Department, which has 11 employees: Head is Yerzhanova Farida Nurmukhambetovna, 1 senior specialist, and the rest are leading specialists. During the accreditation of the MCH, the commission worked with all employees of the Professional Education Department.

Residency training is conducted in accordance with the requirements of regulatory rules. Knowledge and skills are assessed on the basis of the electronic platform for assessing residents' knowledge "Platonus".

The MCH Professional Education Department has developed the Regulation on the internal system for assessing the quality of education in additional and informal education programs and residency, implemented by the RSE "Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan" on the Right of Economic Management and approved on 02/28/2024.

This program is posted on the MCH website. All teachers of the residency in the specialty of cardiac surgery are familiar with it; in addition, they received it in the form of brochures against signature. In accordance with Article 39 of the Law of the Republic of Kazakhstan "On Education", with the order of the Ministry of Health of the Republic of Kazakhstan dated July 4, 2022 No RK MOH-63 "On approval of state mandatory standards for levels of education in the field of health care", the evaluation of the professional training of graduates upon completion of the study of the residency program is the purpose of the final certification. The final certification is carried out in accordance with the order of the Ministry of Health of the Republic of Kazakhstan dated December 11, 2020 No RK MOH-249/2020 "On approval of the rules for assessing the knowledge and skills of students, evaluating the professional training of graduates of educational programs in the field of health care and specialists in the field of health care." The order of the Director of the Hospital approves the FSC committee, which includes the chairman, members from among the scientific and pedagogical staff and a representative of the organization for evaluation and the secretary. The number of members of the committee is an odd number. Based on the results of academic performance, rating of resident doctors, end-of-course assessment and questionnaire survey of resident doctors, the EP is evaluated and improved (amendments and additions are made).

Positive results of the end-of-course assessment of graduates of the EP in the field of health care allow them to receive a document on education and a certificate of a specialist in the field of health care. Upon completion of training, resident doctors of EP 7R01109 "Cardiac Surgery (Adults, Chil-

dren)" will be issued certificates of completion of residency of the state standard with the award of the qualification "Adults, Children Cardiac Surgeon".

The Hospital orders forms of the certificate of completion of residency from the Banknote Factory of the National Bank of the Republic of Kazakhstan.

The quality of training of the Hospital's residency is ensured through a process approach to the management of educational programs. The Hospital has developed a Regulation on the internal system for assessing the quality of education of additional and informal education programs and residency, which contains indicators of education quality, education quality control, monitoring of educational results, internal and external examination.

The main activities to ensure the quality of residency programs are reflected in the work plans of the Department, the Academic Council, and the work plans of the supervising departments. The order of the Director of the Hospital approves the heads of the educational program responsible for its implementation.

EP 7R01109 "Cardiac Surgery (Adults, Children)" fully meets the needs of practical healthcare. The clinical competencies that a residency graduate must master correspond to the qualification requirements for a cardiac surgeon. The level of proficiency in clinical competencies and clinical skills also fully guarantees that a graduate of this residency specialty is able to independently perform the job responsibilities of a cardiac surgeon.

Transparency of the management and decision-making system is ensured by minutes of meetings of advisory bodies with subsequent dissemination to all employees of the Hospital. The Hospital guarantees transparency of the residency program management, ensuring the functioning of a number of mechanisms: development of the program by a working group including various stakeholders, approval and placement of the residency program, all methodological documentation for review in the public domain on the website.

The Hospital guarantees that the EP 7R01109 "Cardiac Surgery (Adults, Children)" meets the needs of public health and the provision of medical services, since the mission of the EP involves training highly qualified independent specialists in the field of cardiac surgery with the integration of knowledge and fundamental principles of cardiac surgery into daily clinical practice, taking into account the latest global achievements in the field of cardiac surgery, creating conditions for supporting resident doctors in research endeavours and instilling the necessary elements of success for a career in cardiothoracic surgery, including objectivity, integrity, self-motivation and a sense of responsibility.

8.2 Academic Leadership

The academic leaders of the Hospital are the Director, Deputy Director for Strategic Development, Science and Education and the Head of the Professional Education Department, responsible for decision-making, possessing high professionalism and qualifications, the ability to clearly define tasks, make quick decisions, and the ability to motivate specialists to work effectively.

The Director determines the development strategy of the Hospital and acts in accordance with the duties defined by the legislation of the Republic of Kazakhstan and job responsibilities.

The Deputy Director for Strategic Development, Science and Education forms and implements the medical aspects of the policy and development strategy of the Hospital and manages the scientific and educational activities of the Hospital.

The responsibility of the professional education department of the MCH is defined, which is enshrined in the document "Regulations on the internal system for assessing the quality of education of additional and non-formal education programs and residency implemented by the RSE "The Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan" on the Right of Economic Management and approved on 28.02. 2024.

The department carries out its activities in accordance with the Constitution of the Republic of Kazakhstan; legislation and LSI in the field of healthcare and medical education of the Republic of Kazakhstan; orders and orders of the Director of the Hospital; the Charter of the Hospital; the Regulation on the department of professional education and job descriptions of specialists. The department reports to the Director of the Hospital, Deputy Director for Strategic Development, Science and Educa-

tion. The department carries out its activities in cooperation with other structural divisions of the Hospital. Transparency of management and decision-making in the educational process is ensured by minutes of meetings of the Scientific-Clinical and Academic Councils with subsequent dissemination to all employees of the Hospital.

Periodic evaluation of the activities of the Hospital management is carried out by:

- conducting analysis and forming reports and plans;
- conducting internal audit and self-assessment;
- quarterly analysis of the implementation of the Hospital's strategic goals;
- quarterly analysis of the Hospital's risks;
- reports of the director, deputy directors on the achievement and implementation of the Hospital's activities and strategic plan.

Reports of the director and his deputies on the results of clinical, scientific, educational and financial and economic activities are heard at the Boards of the MC and the Presidential Administration of the Republic of Kazakhstan.

8.3 Budget for training and resource allocation

The budget of the Department of Educational Activities is formed from several sources:

- republican budget (state educational order for training of postgraduate education personnel);
- educational order at the expense of the local executive bodies;
- provision of paid educational services.

Income is received in the following areas of activity:

- medical activities;
- educational activities;
- postgraduate education (residency);
- educational activities;
- advanced training and retraining of personnel;
- scientific activities;
- other services.

Over the past 5 years, the Hospital has been continuously allocating funds for the purchase of computer equipment, medical equipment, the automated information system "Platonus" was purchased and implemented to automate the educational process, for the purchase of independent final certification services for resident doctors, for the purchase of state-issued forms (residency completion certificate) from the Banknote Factory, and for the training of teaching staff. To ensure students' access to relevant professional literature and electronic databases, the Hospital has signed a Memorandum with the NJSC "Astana Medical University", a Memorandum of Cooperation with the AEO "Nazarbayev University", and an Agreement on library and information services for 2024 with the NJSC "Republican Scientific and Technical Library". The Department has a classroom for resident doctors equipped with 6 new computers with Internet access, electronic databases, educational periodicals, and an electronic library.

In the Hospital, the implementation of residency programs is a paid educational service. The funds received from the provision of educational services are used to reimburse the costs of teaching activities of teachers/mentors in the amount of 40% of the total amount of funds received from the provision of paid educational services.

The Hospital fulfils its obligations to students in residency in accordance with the Decree of the Government of the Republic of Kazakhstan dated February 7, 2008 No. 116 "Rules for the appointment, payment and amount of state scholarships for students in educational organizations", resident doctors studying under the state educational order are paid a scholarship in the amount of 111,579 (one hundred eleven thousand five hundred seventy-nine) tenge. Resident doctors are awarded a state scholarship for the entire period of study, regardless of the results of the midterm certification during the entire period of study.

8.4 Administration and Management

The hospital has an administrative staff in its structure, which includes a block for strategic de-

velopment, science and education. The following are involved in resolving educational issues: the legal department, the department for evaluating health technologies and strategic development, the financial block, the administrative and economic activities block, IT management, the human resources management department, clinical departments and deputy directors for areas. General supervision of educational issues is carried out by the deputy director for strategic development, science and education. Effective interaction between each individual specialist of the structural unit and the organizers of training ensures effective planning of educational events. Each unit monitors certain issues:

- the legal department in terms of contractual relations and the legality of all actions;
- the department for evaluating health technologies and strategic development for strategy;
- the financial block for effective planning of financial resources and their development, timely conclusion of contracts on the portal;
- the administrative and economic activities block for equipping, updating the material and technical base necessary for the educational process;
- IT management for information technologies in the educational process;
- HR department for the selection of qualified specialists involved in the implementation of the educational process;
- clinical departments for the implementation of the EP;
- deputy directors in areas for planning educational events;
- Department for preparing a plan of educational events; for maintaining educational and methodological documentation, according to requirements; organizing admission to training; forming personal files of students; timely preparation and issuance of documents upon completion of the EP; monitoring the progress of the educational process; efficient use of the material and technical base for conducting educational events.

The academic (teaching) staff is formed from the Hospital's doctors in areas of training in accordance with the qualification requirements and is approved annually by the director's order. For the 2023-2024 academic year, the Academic staff includes 73 teachers / mentors.

The implementation of EP 7R01109 "Cardiac surgery (adults, children)" will be carried out by the cardiac surgery department, cardiology department, and arrhythmology department of the Hospital. The head of the EP is appointed by the order of the director.

The Hospital occupies a leading place in the list of rating assessment of the activities of hospitals in the Republic of Kazakhstan, both in terms of clinical indicators and quality management indicators. In order to position itself as a competitive organization in the healthcare system, the Hospital provides not only medical services, but also high-quality educational services under residency programs and advanced training of specialists. The Hospital has a structural unit, the Quality Management and Patient Safety Service, which carries out activities to manage the quality of medical care for patients. The use of a quality management system is a strategic decision for the Hospital, which helps to improve the results of its activities and provides a solid foundation for sustainable development. The Department has developed and approved the Regulation on the internal system for assessing the quality of education of additional and informal education programs and residency implemented in the Hospital.

Target indicators, direct results indicators, activities to achieve results and ensure quality are detailed in the strategic development plan of the Hospital for 2022-2026. The effectiveness of the Strategic Plan is evaluated on the basis of monitoring the main indicators (indicators) of quality and the timing of the implementation of planned activities, monitoring the effectiveness of processes, internal and external audit of the quality management system.

Regular evaluation of the administration and management of the educational process in the Hospital is carried out by various types of accreditations.

In 2019, the Hospital successfully passed institutional accreditation, certificate No IA00009 dated 05/24/2019.

In 2020, the Hospital was accredited as an entity carrying out scientific activities, certificate MK No. 006188 dated 06/23/2020.

In 2021, the Hospital passed a recertification audit with confirmation of compliance of the quality management system with the requirements of the ISO 9001:2016 standard, certificate of conformity No KZ.Q.01.E0689.C21.007949 dated 12/21/2021.

In 2021, the Hospital underwent an evaluation of its activities by the Public Association of Experts and Consultants for External Comprehensive Evaluation in Healthcare of the Centre for Accreditation for Quality in Healthcare from November 22 to 25, 2021. The Hospital was assigned the highest category, No. KZ66VEG00011799 dated November 25, 2021.

In 2022, the Hospital successfully passed the international re-accreditation of JCI.

In 2023, six residency programs were accredited for compliance with international specialized accreditation standards.

The evaluation of EP 7R01109 "Cardiac surgery (adults, children)" is carried out by receiving at least two external reviews / feedback, consideration at the SCC of the Hospital, registration in the Register of the Bologna Process Centre of the MSHE of the Republic of Kazakhstan, surveying students, receiving feedback from employers, and analysing the results of independent certification. The SCC includes leading specialists with an academic degree, experience in the industry, representatives of the authorized body, and chief specialists in clinical areas.

8.5 Requirements and regulations

In its educational activities, the Hospital complies with national legislation and is guided by the LSI of the Republic of Kazakhstan.

Residency training is carried out in specialties, the list of which is approved by the order of the Ministry of Health of the Republic of Kazakhstan dated May 25, 2021 No RK MOH - 43 "On approval of the list of medical specialties of residency programs". <https://adilet.zan.kz/rus/docs/V2300033629>

EP 7R01109 "Cardiac surgery (adults, children)" is included in the Register of educational programs of higher and postgraduate education of the Bologna Process Centre of the MSHE of the Republic of Kazakhstan, which confirms its compliance with the requirements and LSI of the Republic of Kazakhstan.

Residency EPs are discussed with all interested parties:

- are developed in accordance with the Procedure for developing EPs of the Academic Policy of the Hospital;
- are agreed upon with representatives of practical healthcare through peer review and feedback;
- undergo examination in the Register of the Bologna Process Centre of the MSHE of the RK;
- by feedback through a survey of residents;
- by feedback through a survey of employers and monitoring of employment;
- consideration, discussion and approval of the EP at meetings of the collegial bodies of the Hospital.

In addition, the Hospital employees participate in the work of professional associations, in the work of the commissions of the MOH of the RK, the MSHE of the RK, accreditation centres as independent experts, provide treatment, diagnostic and consultative services at clinical sites. Also, the Hospital has concluded agreements, memorandums with leading universities, centres and clinics of the country and foreign countries.

Guided by the Procedure for the Development of Educational Programs of the Academic Policy of the Hospital, the development of the EP was carried out by a working group, which included potential teachers/mentors, cardiac surgeons of the Hospital and external stakeholders - representatives of practical healthcare. The developed EP was reviewed at meetings of the teaching staff, the EP was provided to practical healthcare specialists/potential employers for review (review).

After receiving the reviews, the EP was submitted for review and approval to the meeting of the SCC of the Hospital. Then the EP underwent examination in the Register of the Bologna Process of the MSHE of the RK.

Information on financing and main expenses for training EP 7R01109 "Cardiac Surgery (Adults, Children)"

№	Title	2022-2023 academic year, tenge	2023-2024 academic year, tenge
1	Teacher/mentor salaries	-	-
2	Platonus	-	-
3	Residency completion certificates	-	-
4	Independent examination	-	-
5	Computers	-	-
6	Accreditation	-	1 300 000
	TOTAL	-	1 300 000

Conclusion on standard 8:

1. Responsibility of academic leadership in relation to the development and management of the EP.
2. Sustainable financial condition of the Hospital.

Identified areas for improvement:

1. Funding for academic mobility, internships

Standard 9: CONTINUOUS RENEWAL

The Department of Professional Education of the MCH develops approaches to procedures for regularly updating the training process for residents, the structure, content, learning outcomes/competencies, assessment of knowledge and skills, the learning environment, and allocates resources for continuous improvement.

The strategic directions for the development of the Hospital include regular analysis and assessment of the quality system of educational and medical services and service at all levels of medical care, improvement of the production process management system, strengthening and development of human resources and corporate values, development of innovative and scientific and educational activities.

Monitoring of feedback from consumers of services is carried out to determine the degree of their satisfaction and elimination of deficiencies in the Hospital (questionnaires, examinations).

All areas of the Hospital's activities are regulated by corporate documents (Code, Rules, Standards of Operating Procedures), and educational activities are regulated by internal documents of the Department (Regulations on the Department, Rules for Admission to Residency, Regulations on Residency, Academic Policy, SOP for Residency).

The Hospital strives not only to produce high-quality training of cardiac surgeon residents, but also tries to achieve the greatest possible customer satisfaction.

The development of the Hospital as an educational organization is based on the introduction of new technologies in the educational process, improving the quality of training of resident doctors in order to flexibly respond to market demands. The Hospital's management strives to prevent emerging problems and their causes by improving the internal control and risk management system.

A Roadmap is drawn up annually for the implementation of the Development Concept of subordinate organizations of the MC PAA RK, one of which is the Hospital. The Department is responsible for the transfer of educational services to practical healthcare of the RK, for improving the level of training of the Hospital's medical personnel. The Hospital draws up an Action Plan for the implementation of the key objectives of the RSE "MCH PAA RK" on the REM for the calendar year, which sets out the planned events and educational activities of the Hospital.

The Hospital management conducts regular analyses of the activities of structural divisions, prepares reports that are submitted for discussion to the MC PAA RK, the governing body of the Hospital. The Department's reports include the results of educational activities for the reporting period.

An important condition for the continuous improvement of the postgraduate educational process is the assessment of the quality of learning outcomes/competencies, assessment of knowledge and

skills, and the learning environment of the program. The professional competencies of a residency graduate are formed in accordance with the requirements for the qualification of a physician. The competence of a residency graduate includes not only professional skills, but also training in public health issues and participation in the process of providing medical care to patients. Achieving professional competencies is modified in the Hospital by practicing skills and abilities, passing an exam at the end of each specialized discipline.

During the residency training, the resident physician takes a course in accordance with the State Compulsory Educational Standard of the Republic of Kazakhstan, masters the entire list of the most common diseases and conditions subject to diagnosis and treatment, practical skills, manipulations and procedures.

The Hospital, with the aim of continuously improving the postgraduate educational process in residency in accordance with the practice of educational management, taking into account the needs of practical healthcare of the Republic of Kazakhstan, initiates a review and update of processes. Resources are allocated and an action plan is determined to update the postgraduate educational process in residency, improve management, update the goal of the strategic plan in terms of educational activities of the Hospital, structure and content taking into account the needs of practical healthcare, ensuring the improvement of learning outcomes/competencies, the learning environment of the program.

Conclusion on standard 9:

1. Status of a highly specialized clinical base.
2. Availability of international partnerships and cooperation agreements.
3. Strategic development plan for the implementation of educational activities.

Identified areas for improvement:

1. Participation of the Academic staff in the implementation of the Hospital's Strategic Development Plan in the field of education.

CONCLUSION:

Considering that the primary accreditation of the educational program in the specialty 7R01109 "Cardiac Surgery (Adults, Children)" is being carried out and the admission of residents is planned for 2024, in compliance with the requirements of the Law on Education of the Republic of Kazakhstan, the educational organization initiated specialized (program) accreditation without a contingent of residents. Therefore, the tasks of the external expert commission included evaluating the university's readiness to accept residents, studying the existing principles and approaches to training residents, mechanisms for ensuring quality and managing the educational program of residency using the example of other educational programs. Nevertheless, the EEC specifically studied the organization of training in the specialty 7R01109 "Cardiac Surgery (Adults, Children)", including documentation, Academic staff, educational resources and other important issues related to compliance with accreditation standards.

Conclusion on the report in the form of a SWOT analysis

Standard 1. Mission and final outcomes	
Strengths	Weaknesses
Status of the Hospital's clinical base. Established and developing infrastructure and material and technical base. International partnerships with research centers, university clinics in the near and far abroad, which allows attracting leading foreign specialists to the educational process.	Involvement of stakeholders.

Opportunities	Threats
Own clinical base for cardiac surgery.	Socioeconomic factors
Standard 2. Educational programme	
Strengths	Weaknesses
<p>Availability of a license to engage in educational activities.</p> <p>EP 7R01109 "Cardiac surgery (adults, children)" is included in the Register of the Bologna Process Center of the MSHE of the RK and accredited.</p> <p>Use of the credit system and an integrated learning approach in training residents in accordance with the legislation of the Republic of Kazakhstan.</p> <p>Formation of a catalog of elective disciplines taking into account the needs of practical healthcare.</p>	Implementation of innovative methods in the EP
Opportunities	Threats
Strengthening the relationship between universities and employers with the aim of actively involving employers in the quality assurance and evaluation system, as well as in joint scientific research.	Socioeconomic factors
Standard 3. Resident assessment	
Strengths	Weaknesses
<p>Assessment of residents' academic achievements is carried out in compliance with the regulatory documents of the Republic of Kazakhstan, the Academic Policy of the Hospital.</p> <p>The resident's portfolio allows assessing the development of his/her competencies: personal interest, professional competence, communication, personal qualities, scientific interest.</p> <p>The "Platonus" AIS promotes digitalization and transparency of resident assessment methods.</p>	Lack of a checklist bank for an objective assessment procedure
Opportunities	Threats
Improving the methods of teaching and assessing residents by teachers and mentors.	Socioeconomic factors
Standard 4. Residents	
Strengths	Weaknesses
<p>Availability of internal regulatory documents of the Hospital (Rules for admission to residency, Regulations on residency, Academic policy).</p> <p>Availability of the Residency section on the Hospital website, Instagram page.</p> <p>Access of residents to providing medical care to the assigned population.</p> <p>Involvement of resident doctors in the advisory bodies of the Hospital (KLI, Academic Council, department meetings).</p> <p>Low, affordable cost of educational services corresponding to high quality.</p>	Academic mobility of resident doctors of the Hospital at the international level.
Opportunities	Threats
Obtaining a state educational order in residency. Academic mobility of resident doctors of the Hospital	Socioeconomic factors

in the Republic of Kazakhstan and at the international level.	
Standard 5. Academic staff	
Strengths	Weaknesses
The academic staff of the Hospital consists of highly qualified specialists, experienced clinicians with scientific achievements and medical qualifications. Regular advanced training and pedagogical skills of teachers/mentors of the Hospital. Motivation of teachers/mentors of the Hospital.	Lack of full-time positions of teachers/mentors in the Hospital. Participation of teachers/mentors in scientific and technological progress. Sedateness of teachers.
Opportunities	Threats
Publication activity of teachers/mentors of the Hospital.	Socioeconomic factors
Standard 6. Educational resources	
Strengths	Weaknesses
Own clinical base for the implementation of the residency program. Availability of agreements on joint activities with clinical bases. Availability of the “Platonus” AIS. A safe environment for residents in the Hospital and at clinical bases. Appropriate material and technical base (classrooms, clinical departments, access to electronic literature databases, computer labs, training center).	Lack of library book stock.
Opportunities	Threats
Expansion of simulation classes.	Socioeconomic factors
Standard 7. Evaluation of the educational programme	
Strengths	Weaknesses
Monitoring feedback from students. Monitoring the quality of clinical sites. Monitoring the quality of the educational program for compliance with regulatory documents of the Republic of Kazakhstan	Involvement of national associations in the evaluation of the educational program.
Opportunities	Threats
Involvement of students in the collegial bodies of the Hospital.	Socioeconomic factors
Standard 8. Management and administration	
Strengths	Weaknesses
Status of a highly specialized clinical base. Opening of new in-demand educational residency programs. Strategic development plan for the implementation of educational activities.	Lack of a department for the quality management system of educational activities.
Opportunities	Threats
International partnerships and cooperation agreements. Participation of the Academic staff in the implementation of the Hospital's Strategic Development Plan in the field of education.	Socioeconomic factors
Standard 9. Continuous renewal	

Strengths	Weaknesses
The status of a highly specialized clinical base. Opening of new in-demand educational residency programs. Availability of international partnerships and cooperation agreements. Strategic development plan for the implementation of educational activities.	
Opportunities	Threats
Expansion of the list of educational programs.	Socioeconomic factors

5. Recommendations for improving the educational program 7R01109 “Cardiac surgery (adults, children)”

- 1) Provide the cardiac surgery educational programme with full-time faculty members (Standard 5)
- 2) To purchase educational and scientific literature on cardiac surgery in the library and provide access to it for residents (Standard 6).
- 3) Develop a mechanism to support close communication with future employers of graduates of the cardiac surgery educational programme to improve the educational program (Standard 7).









6. Recommendation to the Accreditation Council of the ECAQA

The members of the EEC established the compliance of the educational program of the residency in the specialty "7R01109 "Cardiac surgery (adults, children)" with the Accreditation Standards and came to a unanimous opinion to recommend that the Accreditation Council of the ECAQA to accredit this program for a period of 5 years.

	Full name	Signature
Chairman	Yermukhanova Lyudmila Sergeevna	
International Expert	Uryasev Oleg Mikhailovich	
Academic Expert	Kasenova Saule Laikovna	
Academic Expert	Yesenkulova Saule Askerovna	
Academic Expert	Smailova Altyнай Nagyzkhanovna	
Academic Expert	Salimbaeva Damilya Nurgazievna	
Employer Expert	Zhukubaeva Almira Asetkyzy	
Student Expert	Nurgaliev Arslan Ardakovich	

6. Рекомендация Аккредитационному совету ЕЦА

Члены ВЭК пришли к единогласному мнению рекомендовать Аккредитационному совету аккредитовать образовательную программу 7R01109 «Кардиохирургия взрослая, детская» РГП «Больница Медицинского центра Управления делами Президента Республики Казахстан» на ПХВ на период 5 лет.

Председатель ВЭК	ЕРМУХАНОВА ЛЮДМИЛА СЕРГЕЕВНА	
Международный эксперт (онлайн)	ОЛЕГ МИХАЙЛОВИЧ УРЯСЬЕВ	
Академический эксперт	КАСЕНОВА САУЛЕ ЛАЙКОВНА	
Академический эксперт	ЕСЕНКУЛОВА САУЛЕ АСКЕРОВНА	
Академический эксперт	СМАИЛОВА АЛТЫНАЙ НАГЫЗХАНОВНА	
Академический эксперт	САЛИМБАЕВА ДАМИЛЯ НУРГАЗИЕВНА	
Эксперт-работодатель	ЖУКУБАЕВА АЛЬМИРА АСЕТКЫЗЫ	
Эксперт-обучающийся	НУРГАЛИЕВ АРСЛАН АРДАКОВИЧ	

Quality profile and criteria for external evaluation of the educational programme (general education)

Standard	Критерии оценки	Количество стандартов	БС*/СУ	Оценка		
				Полностью соответствует	Частично соответствует	Не соответствует
1.	МИССИЯ И КОНЕЧНЫЕ РЕЗУЛЬТАТЫ	14	9/5	9/5	-	
2.	ОБРАЗОВАТЕЛЬНАЯ ПРОГРАММА	22	19/3	19/3	-	
3.	ОЦЕНКА РЕЗИДЕНТОВ	9	6/3	6/3	-	
4.	РЕЗИДЕНТЫ	20	14/6	14/6	-	
5.	АКАДЕМИЧЕСКИЙ ШТАТ/ПРЕПОДАВАТЕЛИ	8	7/1	7/1	-	
6.	ОБРАЗОВАТЕЛЬНЫЕ РЕСУРСЫ	18	11/7	11/7	-	
7.	ОЦЕНКА ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЫ	10	7/3	7/2	0/1	
8.	УПРАВЛЕНИЕ И АДМИНИСТРИРОВАНИЕ	11	8/3	8/3	-	
9.	НЕПРЕРЫВНОЕ УЛУЧШЕНИЕ	2	1/1	1/1	-	
		114	82/32	114		

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

№	Наименования документов/дата утверждения	Количество
1.	Академический календарь на 2022-2023 год	1
2.	Индивидуальный учебный план (ИУП) на 2022-2023 год	1
3.	Образовательная программа на 2022-2023 год	1
4.	Расписание на 2022-2023 год	1
5.	Рабочая учебная программа на 2022-2023 год	1
6.	Список групп на 2022-2023 год	1
7.	Академический календарь 1 год обучения на 2023-2024 год	1
8.	Академический календарь 2 год обучения на 2023-2024 год	1
9.	ИУП Аблайханова Н.	1
10.	ИУП Шадман Н.	1
11.	Образовательная программа на 2023-2024 год	1
12.	Расписание 2 год обучения на 2023-2024 год	1
13.	РУП на 2023-2024 год	1
14.	Список групп 1 год обучения на 2023-2024 год	1
15.	Список групп 2 год обучения на 2023-2024 год	1
16.	Отчет за 12 месяцев 2023 года медико-генетического кабинета Городского перинатального центра №2	1
17.	Рецензия 1 на ОП	1
18.	Рецензия 2 на ОП	1