

To the Accreditation Council of the
Eurasian Center for Accreditation
and Quality Assurance
in Education and Health Care
December 17, 2025

**REPORT
OF THE EXTERNAL EXPERT COMMISSION
ON THE RESULTS OF THE ASSESSMENT OF THE EDUCATIONAL
PROGRAMME IN SPECIALTY 7R01109 "CARDIOSURGERY ADULT,
PEDIATRIC " OF JSC "RESEARCH INSTITUTE OF CARDIOLOGY AND
INTERNAL DISEASES"
FOR COMPLIANCE WITH THE STANDARDS FOR PROGRAMME
ACCREDITATION OF THE POSTGRADUATE EDUCATION (RESIDENCY)
OF THE EURASIAN CENTER FOR ACCREDITATION AND QUALITY
ASSURANCE IN EDUCATION AND HEALTH CARE**

external expert assessment period: 09.12.2025 – 10.12.2025

Almaty, 2025

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LIST OF DESIGNATIONS AND ABBREVIATIONS

Abbreviation	Designation
JSC	Joint-Stock Company
AC	Academic Council
AMS	Administrative and Managerial Staff
SCES	State Compulsory Educational Standard
FSC	Final State Certification
JD	Job Description
IS	Information Security
EC	Elective Component
CF	Clinical Facilities
KTA	Comprehensive Testing of Applicants
CED	Catalog of Elective Disciplines
MHES RK	Ministry of Higher Education and Science of the Republic of Kazakhstan
MH RK	Ministry of Healthcare of the Republic of Kazakhstan
DPCE	Department of Postgraduate and Continuing Education
MEI	Medical Educational Institution
MTE	Material and Technical Equipment
RICID	Research Institute of Cardiology and Internal Diseases
STP	Scientific and Technical Programme
RW	Research Work
EP	Educational Programme
ES	Educational Services
ARA	Admission Rating Assessment
PBL	Problem-Based Learning
TS	Teaching staff
MD	Major Disciplines
AT	Advanced Training
WC	Working Curriculum
CBL	Case-Based Learning
Media	Mass Media
QMS	Quality Management System
IWPD	Independent work of the postgraduate doctor
IWPDT	Independent work of the postgraduate doctor under the guidance of a teacher
TTA	Technical teaching aids
SC	Standard curriculum
TBL	Team-based learning
TM	Teaching materials
AB	Academic Board
JCI	Joint Commission International
WFME	World Federation for Medical Education
ESG	Standards and Guidelines for Quality Assurance in the European Higher Education Area

1. Composition of the External Expert Commission

In accordance with ECAQA Order No.32 dated November 28, 2025, an External Expert Commission (hereinafter referred to as the EEC) has been formed to conduct an external assessment of the residency educational programme in specialty 7R01109 "CARDIOSURGERY ADULT, PEDIATRIC" from December 9, 2025, to December 10, 2025, consisting of the following members:

No.	Status on the EEC	Full name	Academic degree/title, position, place of work/place of study, year, specialty
1	Chairperson	IGIMBAYEVA GAUKHAR TLEUBEKKEYZY	Candidate of Medical Sciences, Professor, EMBA, cardiologist of the highest category, healthcare manager, associate professor at the NJSC "MUK", Director of the Karaganda Branch of the "Association of Cardiologists of Kazakhstan", Karaganda.
2	Foreign Expert	BABAKULOV SHARAF KHAMRAKULOVICH	PhD in Medicine, Head of the Accreditation and Internal Assessment Department of the Tashkent State Medical University, Tashkent, Republic of Uzbekistan
3	Academic Expert	SARSENBAYEVA GULZHAN ISKENDIROVNA	Doctor of Medical Sciences, Associate Professor, pediatric cardiac surgeon at LLP "Institute of Surgery"
4	Employer Expert	RAKISHEV BAUYRZHAN ALDABERGENOVICH	Head of the Cardiac Surgery Unit, cardiac surgeon of the highest category at JSC "A.N. Syzganov National Scientific Center of Surgery"
10	Student Expert	SULEIMANOV RAFIK BORISOVICH	Fourth-year postgraduate doctor in "Cardiosurgery adult, pediatric" at NEI "Kazakh-Russian Medical University"

The EEC's work was conducted in accordance with the EEC Regulations.

The EEC report includes a description of the results and conclusions of the external assessment of educational programme 7R01109 "Cardiosurgery adult, pediatric" for compliance with the Standards for Programme Accreditation of Postgraduate Education (Residency) (developed based on the 2023 WFME International Standards for Improving the Quality of Postgraduate Education Programmes) and conclusions (hereinafter referred to as the Standards for accreditation), the EEC's recommendations for further improvement of the approaches and conditions for implementing the aforementioned educational programme and recommendations for the ECAQA Accreditation Council.

2. General Part of the Final Report

2.1 Presentation of the Residency Educational Programme in Specialty 7R01109 "Cardiosurgery adult, pediatric"

Organization name, legal form of ownership, BIN	Joint-Stock Company "Research Institute of Cardiology and Internal Diseases", BIN 990 240 008 700
Governing body	Board of Directors
Full name of the first head	Chairperson of the Board of Directors of JSC "RICID" Rustem Mukhtarovich Tuleutayev
Date of establishment	The Kazakh Research Institute of Cardiology was founded in December 1977. In 2001, it was transformed into the Research Institute of Cardiology and Internal Diseases. In 2018, it was

	transformed into a Joint-Stock Company.
Location and contact information	Almaty, Aiteke Bi Street 120, Tel. +7 (727) 267–68–34
State license for educational activities in residency (date, number)	No. KZ19LAA00012857 dated September 18, 2018
Information on branches and subsidiaries (if any)	no
Year of commencement of the accredited educational programme (EP)	2025
Information on inclusion in the Register of the EHEA of the Ministry of Science and Higher Education of the Republic of Kazakhstan	10.03.2025
Duration of study	4 years
Total number of graduates since the beginning of the EP	no
Number of postgraduate doctors in the EP since the beginning of the current academic year	2
Full-time/part-time faculty involved in the EP	Total number of teachers: 6, including 1 full-time faculty member and 5 part-time faculty members. Academic degree holder rate, % - 33.3 Category, % - 83.3
Website Instagram Facebook with active pages	https://ncvb.kz/wp-content/uploads/2025/11/utverzhd.-otchet-plan-razvitiya-2-polugodie-2025.pdf https://ncvb.kz/ru/missiya/ https://adilet.zan.kz/rus/docs/V2300031672#z351 https://ncvb.kz/ru/obrazovatelnye-programmy/ https://ncvb.kz/ru/ https://www.instagram.com/nii_cardiology/ https://www.facebook.com/ncvbmzrk/

2.2 Information about Previous Accreditation

Previously, educational programme 7R01109 “Cardiosurgery adult, pediatric” has not been accredited.

2.3 Brief description of the Analysis Results of the Self-Assessment Report of the Residency Educational Programme in Specialty 7R01109 “Cardiosurgery adult, pediatric” and Conclusions on its Completion

The self-assessment report of the residency educational programme in specialty 7R01109 “Cardiosurgery adult, pediatric” (hereinafter referred to as the report) is presented on 177 pages of the main text, 8 pages of annexes (13 tables), and copies or electronic versions of 170 documents located at the following link:

<https://ncvb.kz/wp-content/uploads/2025/11/utverzhd.-otchet-plan-razvitiya-2-polugodie-2025.pdf>,

<https://ncvb.kz/ru/missiya/>, <https://adilet.zan.kz/rus/docs/V2300031672#z351>,

<https://ncvb.kz/ru/obrazovatelnye-programmy/>,

<https://ncvb.kz/ru/razreshitelnye-dokumenty/>,

<https://ncvb.kz/ru/struktura/>,

<https://ncvb.kz/ru/administracziya/>,

<https://ncvb.kz/ru/uchenyj-sovet/>,

<https://ncvb.kz/ru/lokalnaya-komissiya-po-bioetike/>,
<https://ncvb.kz/ru/obrazovanie/>,
<https://ncvb.kz/wp-content/uploads/2025/07/kardiohirurgiya-rus.pdf>,
<https://ncvb.kz/ru/obrazovanie/>.
<https://adilet.zan.kz/rus/docs/V2000021847> -не открылся

The report is characterized by responses to all 8 main standards for accreditation and criteria, a structured approach that takes into account the recommendations of the Guidelines for Conducting Self-Assessment of Educational Programmes provided to the educational organization by the accreditation center - ECAQA, and internal unity of information. A cover letter signed by Rustem Mukhtarovich Tuleutayev, Director of JSC “RICID”, confirming the accuracy of the quantitative information and data included in the self-assessment report, is attached to report.

The report includes a list of the 15 members of the internal self-assessment committee, indicating the responsibilities of each employee, and information about the representative of the organization responsible for conducting the self-assessment of the educational programme - the representative of JSC “RICID”, responsible for conducting the self-assessment of the educational programme to request and obtain the necessary information: Nellya Nikolayevna Ivanchenko, Director of the Department of Postgraduate and Continuing Education, Candidate of Medical Sciences, contact information.

The self-assessment of the residency programme 7R01109 “Cardiosurgery adult, pediatric” at JSC “RICID” was conducted based on Order No.4 dated September 11, 2025, "On Approval of the Working Group for Preparation for Specialized Accreditation of JSC 'Research Institute of Cardiology and Internal Diseases'".

All standards outline the University's actual practices for training postgraduate doctors in the 7R01109 “Cardiosurgery adult, pediatric” specialty, taking into account the start of student admission in 2025. These standards also include substantiated data, examples of the educational programme's objectives, national and international events, and methodological support, confirming compliance with standards for accreditation. The self-assessment report is sufficiently comprehensive and up-to-date in terms of the number of postgraduate doctors, teachers and administration, selection and admission information, learning outcomes, knowledge and skills assessment results, the university's clinical facilities and clinical facilities, contractual obligations with partners (universities, associations and facilities), financial information, development and improvement plans, etc.

The report was submitted to the ECAQA in its final form, with data adjusted according to the above recommendations. It is written in a competent manner, the wording for each standard is clear and understandable and is described in accordance with the criteria of the standards. The tables contain references in the text and are sequentially numbered.

3. Description of the External Expert Assessment

The external expert assessment of educational programme 7R01109 “Cardiosurgery adult, pediatric” was organized in accordance with the Guidelines for Conducting External Assessment of Educational Organizations and Educational Programmes of the ECAQA and according to the programme approved by Order No.32 dated November 28, 2025, by S.S. Sarsenbayeva, Director General of the ECAQA, and agreed upon with R.M. Tuleutayev, Chairman of the Board of Directors of the JSC “Research Institute of Cardiology and Internal Diseases” (RICID). The dates of the visit to the organization were December 9, 2025, through December 10, 2025. The detailed schedule for the 2-day visit is provided in Annex 3 to this report.

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

- conversation with management and administrative staff – 9 people;
- interviews with postgraduate doctors – 2 people, no foreign postgraduate doctors;
- website review: <https://ncvb.kz/ru/>; https://www.instagram.com/nii_cardiology/;
<https://www.facebook.com/ncvbmzrk/>;
- interviewing 12 employees, including: 7 teachers and 5 supervisors;

- surveys of teachers and postgraduate doctors - 6 teachers and 2 postgraduate doctors, respectively;
- observation of postgraduate doctor learning: attendance of one practical lesson (Topic: "Inpatient Cardiosurgery (Adult)", teacher: Galymzhan Berikovich Sultanov, students: first-year postgraduate doctors in the specialty 7R01109 "Cardiosurgery adult, pediatric", training room at the Research Institute of Cardiology and Internal Diseases;
- review of resources in the context of fulfilling standards for accreditation: 2 practical/clinical training facilities were visited, including: Central City Clinical Hospital No.12, State-owned Utility Enterprise on the Right of Economic Management "Almaty Center for Perinatology and Pediatric Cardiosurgery", where training is conducted under the educational programme in the specialty 7R01109 "Cardiosurgery adult, pediatric" with the participation of two part-time employees;
- study of 25 educational and methodological documents both before the visit to organization and during the visit to the divisions (see **Annex 2** for a list of documents reviewed).

The accredited organization's staff ensured the presence of all persons specified in the visit programme and in the lists of interview and conversation sites (Table 1).

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

No.	Position	Number
1	Meeting with the management of the RICID: Rustem Mukhtarovich Tuleutayev - Chairman of the Board of Directors, PhD, Associate Professor. Dzhamilya Akhtanovna Kaibullayeva - Deputy Chairperson of the Board of Directors for Scientific, Clinical and Innovative Work, Candidate of Medical Sciences, Associate Professor. Galymzhan Asylbekovich Togyzbayev - Deputy Chairman of the Board of Directors for Therapeutic Services, Doctor of Medical Sciences Akkanyam Lukpanovna Khamzina - Deputy Chairperson of the Board of Directors for Strategic and Financial-Economic Issues.	4
2	Nurlan Abdikaliyevich Abdikaliyev, Head of the Department of Strategic Development and Organizational-Methodological Work, Doctor of Medical Sciences, Professor. - Laura Bakhytzhonovna Danyarova - Head of the Research Management Department, Candidate of Medical Sciences.	2
3	N.N. Ivanchenko, Head of the Department of Postgraduate and Continuing Education, Candidate of Medical Sciences. Residency Programme Documentation	1
4	JSC "Research Institute of Cardiology and Internal Diseases", Library, Simulation Center	4
5	Teachers of Residency Programme "Cardiosurgery" R.M. Tuleutayev, A.T. Mussagaliyeva, G.B. Sultanov	3
6	Online meetings with teachers of related disciplines: A.B. Parimbekov, A.O. Kalzhanov, A. Bagramov, A. Nikitenko, Abay Kabylybekuly Surtai, Aina Atabekovna Ibragimova	6
7	Gulnar Kenzhekhanovna Aizholova - Head of Human Resources and Legal Support. Moldir Askarovna Maimanova - Chief Specialist of the Planning and Economic Analysis Department.	2
8	Interviews with first-year postgraduate doctors of "Cardiosurgery" EP: Akmaral Dzhambulovna Otegenova,	2

On the last day of the organization visit, a meeting of the EEC members was held to discuss the external assessment results. A final discussion was held regarding the results of the external assessment of the educational programme, document review, conversation, interview and survey results. The EEC members began drafting the final EEC report. A summary of the external assessment results was prepared. The experts individually completed the "Quality Profile and Criteria for External Assessment of the Educational Programme 7R01109 "Cardiosurgery Adult, Pediatric" for Compliance with the ECAQA Standards for accreditation". One EEC member, expert employer Bauyrzhan Aldabergenovich Rakishev, commented on the basic level of first-year cardiac surgery postgraduate doctors. Recommendations for improving the educational programme were discussed, and Chairperson Gaukhar Tleubekkyzy Igimbayeva held a final open vote on the recommendations for the ECAQA Accreditation Council.

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

In a survey of postgraduate doctors, 100% rated the work of the External Expert Commission on Accreditation as positive, and 100% believed that accreditation of the educational organization or educational programmes was necessary.

According to 83.33% of teachers, the survey conducted by the ECAQA was useful for developing recommendations for improving key areas of the accredited educational organization.

At the end of the visit programme, the EEC chairperson presented recommendations based on the external assessment as part of the specialized accreditation to the educational organization's management and staff.

4. Analysis of Compliance with Standards for accreditation Based on the External Assessment of the Residency Educational Programme in Specialty 7R01109 "Cardiosurgery Adult, Pediatric"

Standard 1: MISSION AND VALUES

1.1 Stating the mission

After reviewing the mission statement submitted by the JSC 'Research Institute of Cardiology and Internal Diseases', as well as reviewing the self-assessment report data and the results of meetings with management, faculty, residents, and clinical supervisors, the external expert committee noted the following.

During the implementation of program activities, namely, following interviews with the organization's top managers, relevant departments, and faculty, it was noted that all participants in the educational process are aware of the JSC 'Research Institute of Cardiology and Internal Diseases' mission and participated in developing proposals for formulating the mission. The mission has been communicated to potential residents through the website, social media, and informational letters to medical organizations. The organization's five-year strategic plan was reviewed, which includes the following areas: 1) Improving the accessibility and quality of medical care, as well as inpatient care indicators; 2) Improving patient-centeredness; 3) Strengthening research activities; 4) Strengthening an integrated approach to education. The above-mentioned areas confirm compliance with the standards for accreditation and demonstrate the organization's goals, objectives, and prospects. Interviews with residents revealed that before classes begin, faculty inform residents about the organization's mission and work plans, and advise them on where to obtain necessary information about the educational program, faculty, and training facilities.

The educational organization trains residents at the following clinical sites and departments: the Adult and Pediatric Cardiac Surgery Department, the Department of Radiology and Surgical Diagnostics and Treatment Methods, the Department of Anesthesiology and Intensive Care, the Heart

Transplant Department, and the Functional Diagnostics Department. These departments provide a patient-centered approach through individualized treatment decisions, interdisciplinary discussions of complex clinical cases, and ongoing interaction with the patient and their family.

The educational organization prioritizes patient safety and autonomy through strict adherence to clinical protocols, mandatory informed consent, infection control, and the use of modern patient managing technologies.

Experts found that residents have appropriate working conditions to support their own health, as the educational institution provides a rational shift schedule, access to rest areas and meals, psychological support, and a policy to prevent professional burnout.

Basic resident competencies in the accredited specialty, such as clinical reasoning, diagnostic interpretation skills, and knowledge of cardiovascular physiology principles, as well as specialized competencies including mastery of cardiac surgical techniques, skills in operating high-tech equipment, and postoperative patient care, enable the educational institution to implement innovative training methods. This will help residents develop skills and qualities such as critical thinking, clinical independence, decision-making under time constraints, teamwork, and professional responsibility.

The educational organization encourages residents to participate in research in their chosen specialty through their inclusion in the institute's scientific projects, access to research infrastructure, and support from scientific advisors. Residents also participate in academic events such as scientific and practical conferences, clinical reviews, interdisciplinary symposia, and weekly scientific seminars.

At the same time, experts have identified that, despite the high level of organization of the educational process, areas requiring further development remain. In particular, they have identified the need to:

- strengthen the documentation of clinical supervising processes, including formalized criteria for assigning residents to supervisors and uniform approaches to assessing their competency development;
- expand residents' access to modern simulation technologies, particularly in terms of simulating high-risk cardiac surgery and practicing emergency skills;
- Increase the level of resident engagement in international educational and scientific initiatives, including internships, exchanges, participation in international conferences, webinars, and collaborative research;
- Update the feedback system, ensuring regular analysis of resident comments on the quality of clinical training and documented implementation of corrective measures;
- Systematize measures to prevent professional burnout, ensuring access to stress management programs, consultations, and a supportive environment during periods of high workload and on-call duty.

Upon further analysis of the submitted materials, the expert committee determined that the JSC "Research Institute of Cardiology and Internal Diseases" has a clearly defined mission statement reflecting the organization's strategic directions: "Striving for a high level of medical care, improving and maintaining public health, utilizing cutting-edge scientific and clinical achievements, and training highly qualified specialists based on modern educational programs." This mission is substantive, consistent with the institution's core business, and reflects its contribution to the development of the healthcare system.

During the accreditation process, it was determined that a separate mission statement, developed specifically for educational programme 7R01109 "Adult and Pediatric Cardiac Surgery," is "Developing the competencies and personal qualities of a new generation of cardiac surgeons who possess competitiveness, creative and innovative thinking, and are capable of effectively applying their knowledge and skills in practice." This facilitates the clear positioning of the program, the formulation of its unique goals, and the demonstration of the specifics of training specialists in this high-tech specialty.

In accordance with the standards for accreditation, the mission of the educational programme must reflect:

- its target focus,
- the specifics of training adult and pediatric cardiac surgeons,
- program development priorities,
- the expected contribution of graduates to the healthcare system,
- the values and competency model unique to this specialty.

The above elements in the submitted documents are formulated, specified, and aligned with the overall mission of the organization, which outlines the specifics of training cardiac surgery residents.

Conclusion on paragraph 1.1:

The organization's mission is presented and aligns with the institution's strategic direction. The experts determined that the mission of the educational programme for specialty 7R01109 "Adult and Pediatric Cardiac Surgery" presented by the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) reflects the specifics defining the training of specialists in this particular specialty, including the clinical context, patient age groups, expected competencies, and priorities for high-tech surgical care.

The criterion for this item is assessed as met, while the expert committee notes the need to further strengthen the formalized mechanism for regularly reviewing the mission with the participation of external stakeholders—practicing cardiac surgeons, patients, professional associations, and employers. This approach will allow for the timely adaptation of the program's strategic goals to the dynamically changing clinical and technological requirements of the specialty.

In the future, if revision is necessary, the following sample mission for specialty 7R01109 "Adult and Pediatric Cardiac Surgery" can be proposed: *"Training highly qualified cardiac surgeons for adult and pediatric clinical practice, capable of providing safe, effective, and innovative specialized medical care to the population using modern technologies in cardiac and vascular surgery; development of professional culture, clinical thinking, research skills, and readiness for continuous professional growth."*

This mission also focuses on:

- the needs of the healthcare system of the Republic of Kazakhstan;
- the specifics of cardiac surgery (adult and pediatric);
- the patient as the primary focus of activity;
- professional and competency requirements.

1.2 Participation in mission formulation

RICID systematically assesses the current state of affairs and development prospects, analyzes strengths and identifies weaknesses. Following discussion of the analysis results, structural divisions develop improvement measures, which are then used to formulate a strategic development plan.

Experts determined that students, patients, employers, researchers, administrative and management personnel, and support staff participated in developing the goals and objectives (mission) of the educational program, as confirmed by the document "Minutes of the Working Group Meeting on Updating EP No. 3, dated February 14, 2025." Suggestions included expanding simulation classes, strengthening the program's focus on pediatric cardiac surgery, increasing the number of clinical reviews, and introducing communication training for parents of child patients.

When updated regulations in education and healthcare are released, educational programme developers take into account the new requirements of the state mandatory standard and independent accreditation criteria and make appropriate changes.

At the same time, when speaking with residents and employers, experts did not receive a clear answer to the question: "Are you involved in formulating the mission and goals of the organization and educational program?" and "What is your personal contribution to improving the program?". Residents and employers noted that their opinions are taken into account, but they lack a clear understanding of the process.

In a survey of two residents (on webanketa.com), some of the 24 questions were devoted to the quality of the educational process. It was found that 100% of residents would recommend studying at this organization to their friends, and 100% believe that the program management and faculty are aware of student needs. To the question, "Does the organization allow me to acquire the necessary knowledge and skills?", 100% responded positively.

Of the six teachers surveyed, the teaching experience was distributed as follows: up to 5 years – 66.67%, up to 10 years – 33.33%. The six teachers surveyed (23 survey questions) reported that 83.33% were satisfied with the organization of their work and workplace, and 16.67% partially agreed.

Experts found a healthy microclimate within the organization: the director is accessible to residents and staff, promptly responds to official inquiries, and creates conditions for constructive communication; 100% of faculty believe they have the opportunity to develop professionally, with 83.33% of faculty members satisfied with the educational process, 16.67% partially satisfied, and 100% completely satisfied with the work organization and workplace, which allows for research and publication of research results. 100% of faculty members are satisfied with the work of the postgraduate education department. In response to the question, "The organization supports my participation in conferences (international, national)," 66.67% of faculty members agreed, with travel, travel expenses, and registration fees covered. 33.33% of faculty members have not contacted management regarding this issue. Regarding satisfaction with the level of residents' prior training upon admission, 50% of faculty members responded that they were completely satisfied, 33.33% were partially satisfied, and 16.67% were completely dissatisfied..

Conclusion on paragraph 1.2

The expert committee notes that the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has a systematic and consistent internal quality assessment mechanism, including an analysis of strengths and weaknesses, discussion of results within departments, and the development of improvement measures. This approach demonstrates the sustainability of quality management processes and a focus on strategic development.

Documents confirm the organization's commitment to engaging a wide range of stakeholders in the development of the educational program, including students, clinical supervisors, employers, patients, and administrative and management personnel. However, interview results indicate that the actual involvement of residents and employers remains insufficiently understood—participants do not always understand how their opinions are integrated into the program. This indicates the need for greater transparency of procedures and additional information support. Resident surveys reflect predominantly positive assessments of the quality of education, the level of teaching, and opportunities for acquiring professional skills.

The faculty survey demonstrates a high level of satisfaction with working conditions, the work environment, and opportunities for professional growth. Accessibility of management and prompt response to requests create a favorable work environment.

Thus, JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) demonstrates a sustainable quality management system and regular performance reviews. Despite the presence of formal mechanisms for stakeholder participation in the development of the educational program, the actual involvement of students and employers needs to be strengthened. The survey results confirm the high level of satisfaction of residents and faculty, as well as a favorable work environment. The Commission believes it is necessary to strengthen feedback processes and ensure more transparent participation of residents and employers in updating the educational program.

Evidence (facts)	Conclusions (expert assessment)
Strengths and weaknesses analysis, departmental discussions, and event development	The quality assurance system functions reliably and consistently
Minutes of working groups with stakeholder participation	All groups formally declared their participation in program development

Evidence (facts)	Conclusions (expert assessment)
Interviews: residents and employers found it difficult to describe their contribution	Actual stakeholder participation is insufficiently conscious
Resident survey: 100% recommend the organization	High student satisfaction with the program
100% of faculty believe they can realize their professional potential	Good working conditions and a stable microclimate have been created
Highly accessible management	Effective internal communication and prompt response

Conclusions of EEC by criteria. Comply with 6 standards: 5 - fully, 1 - partially, 0 - not compliant

Standard	Standard Compliance	Recommendations for Improvement
1.2.1	Partially Compliant	It is recommended to formalize and document the participation of students and employers in revising the educational program's mission through Academic Policy procedures, with mandatory review by the Academic Council and coordination by the DPCE.

Standard 2: EDUCATIONAL PROGRAMME

2.1 Educational programme and certification

The experts determined that there is a correlation between the content of the educational programme and the required resident qualifications upon completion of the program in specialty 7R01109 "Adult and Pediatric Cardiac Surgery." This correlation is expressed in structuring the curriculum based on the principle of progressive mastery of competencies: from basic knowledge of cardiovascular physiology and diagnostic methods to complex high-tech cardiac surgical interventions, as well as ensuring sufficient clinical practice in adult and pediatric patients. Cardiac surgery departments. This approach ensures that graduates develop the necessary professional skills and are prepared for independent clinical practice.

Upon completion of their training, residents are admitted to an independent examination through the National Center for Independent Examination (NCIE), where graduates take certification exams (<https://qazexam.kz>), which allows them to obtain a specialist certificate and be admitted to clinical practice in medical organizations of the Republic of Kazakhstan that operate in their field.

The educational institution has developed a catalog of 26 elective courses (CED), which meets modern cardiac surgery requirements and the objectives of training a specialist in specialty 7R01109 "Adult and Pediatric Cardiac Surgery." This individualized training of resident physicians deepens professional competencies and expands residents' opportunities to acquire highly specialized practical skills, allowing each resident to choose areas of advanced training that match their professional interests and needs. Given that specialty 7R01109 "Adult and Pediatric Cardiac Surgery" is in its first year, there have been no graduates of cardiac surgery residents.

The experts reviewed documents confirming the fulfillment of this standards for accreditation criterion, including: the curriculum and module work programs, the competency matrix and the compliance of the competency model with the intended learning outcomes, practical skills mastery maps and clinical practice log, interim assessment and final assessment reports, graduate knowledge assessment results (Platonus), certification course completion documents, and minutes of meetings of the methodological and clinical departments. This provides a sufficient evidence base for assessing the fulfillment of this criterion. The residency program in specialty 7R01109 "Cardiac Surgery (Adult and Pediatric)" has been included in the EHEA Register since 2025, confirming its compliance with national requirements for postgraduate medical education programs and providing official recognition of its status.

2.2 **Intended** learning outcomes

The experts determined that the resident learning outcomes have been defined and included in the educational and methodological complex. The residency program in "Cardiac Surgery (Adult and Pediatric)" was approved by the Academic Council by Protocol No. 2 dated February 18, 2025, and its registration in the register of educational programs is scheduled for April 19, 2024. <https://ncvb.kz/ru/obrazovatelnye-programmy/>

Stakeholders are informed about the final training outcomes for residents in specialty 7R01109 "Adult and Pediatric Cardiac Surgery" by publishing a document on the institute's official website, sending it to faculty and residents, and conducting introductory seminars for employers and supervisors.

Experts confirmed that residents' professional behavior and communication skills are developed through clinical rotations, simulation training, participation in clinical case studies, and supervising from experienced specialists, and are reflected in the educational program. Faculty and residents have been informed of the Code of Ethics. The Code of Ethics can be found on the institute's official website/internal portal for staff and students.

It has been established that the expected learning outcomes comply with the requirements of national professional standards for the specialty "Cardiac Surgery" and international recommendations for the training of cardiac surgeons. A review of the accredited educational programme has been submitted by K.B. Abzaliev, MD, Professor of the Department at Al-Farabi Kazakh National University. Thus, the requirements of the professional community for adult and pediatric cardiac surgery have been taken into account.

The educational programme defines learning outcomes for the specialty 7R01109 "Adult and Pediatric Cardiac Surgery," which include knowledge, professional skills, and competencies in medical and communication behavior. Each skill can be assessed and measured, for example, through simulation tests, supervised procedures, case discussions, and objective structured clinical examinations (OSCEs).

Regular oral feedback is provided to residents after each session, and a survey of cardiac surgery residents is administered, given that the first year of training was not conducted. A survey of residents from various specialties, including cardiac surgery residents, found that 100% of students positively assessed the quality of the educational process and the opportunity to acquire the necessary professional skills.

To improve the cardiac surgery curriculum, the educational organization updated simulation modules in 2025, introduced additional clinical cases, and plans to expand rotations in pediatric cardiac surgery.

Residents' participation in providing medical care to the public is a mandatory component of their training. The residency program in Adult and Pediatric Cardiac Surgery at the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) integrates training at clinical sites in Almaty, as well as on-site internships: 1. City Cardiology Center; 2. Scientific Center for Pediatrics and Pediatric Surgery; 3. Center for Perinatology and Pediatric Cardiac Surgery; 4. No. 12 "Central City Clinical Hospital." On-site internships for residents of the Adult and Pediatric Cardiac Surgery program are scheduled starting in their third year of study.

Residents' independent study includes attending lectures, master classes, and international webinars, preparing scientific and clinical reports, and developing scientific publications and presentations. All independent work results are documented in the form of portfolios and clinical practice reports. The Department of Cardiology with a Cardiac Surgery Course organizes training in the Institute's simulation center and training operating rooms.

Residents' professional conduct is ensured through supervising, supervisor assessments, and regular communication and ethics training. The JSC "Research Institute of Cardiology and Internal Diseases" (RICID) Code of Business Ethics was approved by Resolution No. 2 of the Board of Directors of JSC "Research Institute of Cardiology and Internal Diseases" (RICID) dated April 19,

2019 <https://ncvb.kz/ru/korporativnye-dokumenty/>. When interviewing employers, experts clarified that they were satisfied with the residents' behavior: residents adhere to ethical standards in their relationships with faculty, fellow students, and healthcare staff.

An ethics council (or disciplinary commission) is in place, and any employee of the educational institution may appeal to resolve conflict situations. No such situations were recorded during the period 2021–2024. Residents themselves confirmed that faculty maintain ethical communication with students. When asked about conflict resolution studies for faculty, the response was that training was held annually as part of faculty development.

When determining the intended learning outcomes, the Department of Continuing Education staff considered the results of previous undergraduate and internship training, as well as the goals and objectives of subsequent continuous professional development in the chosen specialty. The educational institution offers continuing and informal education, including programs in the accredited educational program: "Surgical Treatment of Patients with AHF and CHF" (4 credits, 120 academic hours), and "Clinical Cardiology: Current Issues in the Diagnosis and Interventional Treatment of Heart Rhythm Disorders" (4 credits, 120 academic hours). Additional programs could be implemented, for example, on the following topics: "Modern Methods of Cardiac Surgery," "Management of Cardiac Surgery Departments," and "Prevention of Postoperative Complications."

Experts established continuity between the final outcomes of residents' prior training (prerequisites), residency training, and subsequent continuous professional development programs. Modern educational technologies are actively used in the practical implementation of training, including Journal Clubs, simulation training, and online courses on Coursera platforms. An assessment approach based on Entrustable Professional Activities (EPAs) is also being implemented, which facilitates the development of clinical competencies that meet the requirements of certification procedures and practice. Residents are informed of these opportunities. A special place is occupied by the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) simulation classroom, which creates conditions for practical training of physicians, residents, and medical professionals from various specialties in a simulated environment. Here, skills and actions are practiced in standard, emergency, and non-standard situations, which facilitates the effective provision of medical care and the reinforcement of acquired skills. In 2025, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) Simulation Center was equipped with modern equipment worth 1,300,000 tenge. Modern dummies worth 1,700,000 tenge are planned to be purchased by the end of 2025.

92% of faculty respondents believe that students at this educational institution possess a high level of knowledge and practical skills after completing the training program, and 8% partially agree. Regarding satisfaction with the level of residents' prior training upon admission, 50% of faculty responded that they were completely satisfied, 33.33% were partially satisfied, and 16.67% were completely dissatisfied.

The qualification obtained by completing the educational programme in specialty 7R01109 "Adult and Pediatric Cardiac Surgery" corresponds to Level 8 of the National Qualifications Framework and has the code 7R01109. Completion of residency training results in the issuance of a specialist certificate, which is required for admission to independent clinical practice in medical organizations in the Republic of Kazakhstan and for employment in the cardiac surgery field.

2.3 Educational programme organization and structure

The educational programme model for specialty 7R01109 "Adult and Pediatric Cardiac Surgery" is based on the intended learning outcomes of residents and therefore includes the following: in accordance with the 2022 State Educational Standard, the program structure consists of a mandatory component (262 credits) and an elective component (16 credits). Residents independently select elective courses, which are reflected in their individual plans. Two credits are also allocated for final certification. Therefore, the workload for resident training is 280 credits. The program structure provides for rotations across various specialized disciplines, which is reflected in the sequential change of training modules throughout each academic year. Thus, according to the 2022 State Educational

Standard and the approved syllabi of the educational program, the rotation year of the reporting EP included the following disciplines: "Outpatient Cardiac Surgery (Childhood)," "Cardiology (Interventional Cardiology)," "Arrhythmology," and "Intensive Care in Cardiac Surgery - 1." Duration of study is 4 years.

1st year of study: 70 credits; mandatory components (specialized disciplines) - "Outpatient Cardiac Surgery (Adult, Pediatric) - 1" (8 credits, 240 academic hours, 5.3 weeks), "Inpatient Cardiac Surgery (Adult) - 1" (20 credits, 600 academic hours), "Cardiology (Interventional Cardiology) - 1" (12 credits, 360 Academic hours), "Intensive Care in Cardiac Surgery - 1" (8 credits, 240 academic hours), "Arrhythmology - 1" (20 credits, 600 hours), "Perfusion and Assisted Circulation - 1" (10 credits, 300 academic hours).

2nd year of study: 70 credits; compulsory components (specialized disciplines) - "Outpatient Cardiac Surgery (Adult, Pediatric) - 2" (8 credits, 240 academic hours), "Inpatient Cardiac Surgery (Adult) - 2" (20 credits, 600 academic hours), "Cardiology (Interventional Cardiology) - 2" (12 credits, 360 academic hours), "Intensive Care in Cardiac Surgery - 1" (8 credits, 240 academic hours), "Arrhythmology 2" (20 credits, 600 academic hours), "Perfusion and Assisted Circulation 1" (10 credits, 300 academic hours).

3rd year of study: 70 credits; compulsory components (specialized courses) - "Inpatient Cardiac Surgery (Adult)-3" (36 credits, 1080 academic hours), "Congenital Heart Defects-1" (14 credits, 420 academic hours), "Angiosurgery-1" (12 credits, 360 academic hours); elective component (8 credits, 240 academic hours).

4th year of study: 70 credits; compulsory components (specialized courses) - "Inpatient Cardiac Surgery (Adult)-3" (36 credits, 1080 academic hours), "Congenital Heart Defects-1" (12 credits, 360 academic hours), "Angiosurgery-2" (12 credits, 360 academic hours); an elective component (8 credits, 240 academic hours).

Final certification: 2 credits, 60 academic hours.

The experts determined that the systematic and transparent nature of the training is guaranteed by the fact that the educational process is carried out in accordance with the approved curriculum, course syllabi, competency matrix, and established quality control procedures accessible to all stakeholders.

To implement the educational programme in specialty 7R01109 "Adult and Pediatric Cardiac Surgery," the organization has developed and utilized teaching and methodological materials that clearly outline the learning objectives, the integration of theoretical and practical components, and the types of Residents' independent work and monitoring procedures. Compliance with the State Educational Standard (GOSO) and standard requirements was established, including the curriculum structure, scope of practical training, and the presence of mandatory and optional modules.

During an expert's two-hour practical session on "Inpatient Cardiac Surgery (Adult)," it was determined that the training was being conducted as planned: residents completed an oral interview with the instructor before the session, received timely feedback, and had the opportunity to improve their professional knowledge on theoretical topics.

The organization ensures ethical compliance in the implementation of the educational program. The experts reviewed the Code of Business Ethics of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) (approved by Resolution No. 2 of the Board of Directors of JSC "RICID" dated April 19, 2019, <https://ncvb.kz/ru/korporativnye-dokumenty/>), During interviews, residents confirmed their awareness of its content and the mandatory nature of their compliance.

An analysis of educational activities revealed that the program's scientific foundation is consistent with the current state of medical science: the teaching and methodological complex (EMCD) and syllabi have been updated with relevant additions, the bibliography has been updated, and faculty utilize modern evidence-based sources in their classes.

The supervising system is described in the Individual Educational Plan (IEP) document and the supervising Regulations. The organization has 16 supervisors, whose responsibilities include

supporting residents in clinical practice, developing practical skills, correcting errors, developing professional ethics, and assessing progress.

The procedure for informing residents of their rights and responsibilities is set forth in the "Agreement for the Provision of Educational Services."

Faculty use a variety of teaching methods: simulation training, clinical case analysis, demonstration surgeries, bedside training, master classes, and educational conferences. A list of teaching methods is described in the educational program. Through these methods, residents actively participate in the provision of medical care. Faculty members supervise approximately 5-6 specialized patients per day.

Experts have determined that the organization adheres to the principles of academic integrity and anti-plagiarism. The Institute closely monitors compliance with the principles of academic integrity and the anti-plagiarism policy. The Institute operates a specialized violation detection system, which includes mechanisms to control plagiarism and other forms of academic dishonesty. This system is contracted with the branch of PLAGIAT.PL, a limited liability company, in the Republic of Kazakhstan. Violations of this policy, including cases of plagiarism, result in strict disciplinary action, underscoring the seriousness of its approach to maintaining academic ethics. The principles of academic integrity are applied during written assignments, clinical documentation, and interim assessment and final assessments. Anti-plagiarism is used when reviewing scientific articles, reports, essays, papers, and theses.

Residents are trained in the correct procedure for collecting informed consent. The experts identified signed documents from patients in the medical records confirming compliance with ethical and legal standards.

Thus, by the completion of the four-year training, residents acquire key professional skills and competencies in the specialty 7R01109 "Adult and Pediatric Cardiac Surgery," enabling them to work in practical healthcare organizations specializing in cardiac surgery (ESG 1.2).

The experts found no violations of the principles of equal access to postgraduate education and continuous professional development: the organization complies with the Constitution of the Republic of Kazakhstan, the Law "On the Languages of the Peoples of the Republic of Kazakhstan," and other regulatory documents. For example, the department employs 20 people, 40% of whom are women and 60% men, confirming the non-discrimination based on gender and a balanced gender distribution within this educational program.

The educational organization has a mechanism for regularly adapting teaching methods to the requirements of modern medical science and the needs of practical healthcare. This mechanism includes annual updates of work programs, revision of educational materials, consideration of feedback from residents and employers, implementation of new clinical technologies and protocols, and advanced training for faculty. This demonstrates compliance with ESG Standard 2 regarding the adaptation of training to resident needs.

2.4 Educational programme content

Experts have determined that the educational institution has all the necessary documents regulating the requirements for the structure and content of educational programs, including the State Educational Standard of the Republic of Kazakhstan for postgraduate education, standard professional curricula, medical care standards, and internal regulations for the development of educational programs, ensuring compliance of the educational process with national standards and standard rules. Responsibility for the selection, implementation, and subsequent support of innovations in the educational process is assigned to the Department of Postgraduate and Continuing Education (DPCE), in collaboration with the Head of the Department of Cardiology with a Cardiac Surgery Course, in accordance with the principles of the internal quality assurance system.

The curriculum and catalog of elective courses reflect the needs of the modern healthcare system, including the increasing number of open-heart surgeries, the growing demand for pediatric cardiac surgery specialists, the development of interventional technologies, as well as the specific

research work and achievements of the department's faculty. These include participation in research grants, the development of new surgical techniques, publications in top-ranked journals, and participation in international congresses of cardiac surgeons.

To successfully implement the educational programme in the specialty "Adult and Pediatric Cardiac Surgery," the organization has several resources for assessing residents' practical skills (simulation stations, access to operating rooms for assisting and supervising patients). However, there are challenges in planning, developing, and approving educational programs, including insufficient digitalization of the approval process, limited employer involvement in the early stages of program development, and high faculty workloads.

Experts determined that the educational programme takes into account legal requirements, including those related to language policy, adherence to clinical protocols, and medical ethics standards in resident training.

According to the current State Educational Standard of the Ministry of Health of the Republic of Kazakhstan (2022), 80% of the time is allocated to practical training for residents, including on-call shifts, patient management, and participation in clinical conferences. Theoretical knowledge is supplemented by teaching methods such as lectures, small group classes, and problem-based learning, which account for no more than 20% of the curriculum time. The compulsory component of the educational programme consists of 262 credits and includes 8 disciplines, consistent with the structure of the State Educational Standard. The elective component, which comprises 16 credits, includes on-call assignments, patient management, and participation in clinical conferences, all aimed at developing clinical thinking and operational skills. The educational process during the residency program is based on the academic calendar and individualized curricula, which take into account both previously completed courses and the need to deepen key clinical competencies.

Residents are assigned to experienced supervisors in various clinical departments of the Research Institute of Clinical and Clinical Diseases, ensuring full practical immersion and development of professional skills. The educational model integrates modern active learning methods: problem-based learning, case-based learning, journal clubs, and bedside teaching, which contribute to the development of high-level clinical thinking and teamwork in future specialists.

The scientific component of resident training is developed through participation in the institute's research projects, laboratory work, clinical observations, critical analysis of scientific literature, and the preparation of research articles. More detailed information about current research projects can be found on the website at the link: <https://ncvb.kz/ru/nauchnye-issledovaniya/>. Currently, the research project "Improving the Outcomes of Surgical Myocardial Revascularization Based on the Development of Comprehensive Innovative Patient Management after Intervention" (2023-2025) is nearing completion. The project manager is L.B. Danyarova, MD, PhD.

The educational organization guarantees adjustments to the structure, content, and duration of the educational programme in the event of changes in scientific research, the demographic situation, or the requirements of the healthcare system. To this end, there is a mechanism for annual program review and revision at meetings of the Academic Council, the participation of external experts and employer feedback, and a procedure for monitoring resident feedback. Content updates are regulated by the Academic Policy of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID).

Faculty provide residents with educational and methodological materials, clinical guidelines, and additional literature. According to the survey, 100% of residents are completely satisfied with the materials provided.

The organization has signed 24 contracts with medical organizations, and in 2025, the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) concluded a number of important cooperation memoranda with leading international organizations and institutes. The signed documents include agreements with the Kansai Electric Power Research Institute (Japan), EGEI University (Turkey), the Cardiology Research Institute (Azerbaijan), the Federal State Budgetary Scientific Institution "Research Institute of Complex Issues of Cardiovascular Diseases" (Russia), and the I.M. Sechenov First Moscow State Medical University (Russia). These memorandums enable the

establishment of strong partnerships, the joint implementation of research projects, the exchange of knowledge and experience, and the organization of joint educational programs. This ensures a wide range of clinical cases and a sufficient volume of practical training. In response to the question "Is there sufficient time for practical training?" 100% of residents responded completely positively, and 100% of residents noted that faculty regularly provide feedback after classes, including discussions of clinical cases, error analysis, and mini-surveys.

Most residents noted the high level of organization of the educational schedule, with 100% indicating they were completely satisfied with it.

The residency educational programme is based on a clearly defined competency model. This model includes six core competencies: Patient Care, Communication and Collaboration, Safety and Quality, Public Health, Research, and Learning and Development.

Teaching and teaching methods within the residency program are developed and approved at the institutional level, ensuring the standardization and quality of the educational process. All matters related to the planning, development, and approval of educational programs are discussed and approved at meetings of the Academic Council. The council includes leading clinicians, management staff, and the residents themselves, facilitating comprehensive and transparent management of the educational process.

Residency training at the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) is conducted through its own departments and centers. To provide educational opportunities for patients whose profiles are not covered by our clinics, we enter into agreements with third-party clinical sites. Residents have confirmed that the training is based on evidence-based medicine. In patient management, we utilize current clinical protocols from the Ministry of Health of the Republic of Kazakhstan, recommendations from ESC/EACTS and other professional societies, and high-quality bibliographic sources, which contribute to the development of medical judgment and evidence assessment skills.

The survey also showed that access to research activities is fully provided: *100% of residents are completely satisfied with the opportunities to participate in research. Currently, two residents (100%) have planned research projects, conducting patent searches in their respective fields.*

2.5 Learning methods and experience

The primary teaching methods in residency include: theoretical teaching methods (lectures, seminars, research papers, oral presentations), interactive theoretical teaching methods (group discussions, small-group learning, presentations, practical exercises using scientific research, simulation technologies aimed at stimulating cognitive activity, developing decision-making skills, critical thinking, and teamwork, modeling real-life professional situations), clinical training, and development of practical skills (patient management, participation in clinical discussions of complex cases and bedside rounds with department heads, physicians, and leading specialists in accordance with the requirements of scientific institutions, participation in surgical interventions of varying complexity with subsequent report preparation at morning conferences, preparation of analytical reports on department activities, organization and participation in training sessions with practicing healthcare physicians, and practicing practical skills in simulation rooms). clinical supervising is central to the practical training of residents. According to the academic policy of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID), each resident physician is assigned a supervisor—an experienced specialist with a high level of professional training and a qualification category in the relevant specialty. The supervisor's primary task is systematic, individualized work with the resident, aimed at developing the necessary practical skills and abilities. During rotation from one department to another within the approved schedule for the academic year, the head of the department assigns a supervising physician to each resident physician. This mechanism ensures systematic support and oversight of the learning process, facilitating the development of sustainable professional skills and knowledge in residents necessary for the successful implementation of their future professional activities.

The responsibilities of the supervising physician include: providing resident physicians with patients in the department, in accordance with the individual plan of practice of the resident physician;

training resident physicians by conducting joint bedside rounds and discussing the patient examination and treatment plan; assessing the resident physician for mastery of knowledge and practical skills during and at the end of the rotation/discipline in accordance with the approved assessment forms and their timely completion; facilitating the development of teamwork skills and a patient-oriented approach in clinical practice by the resident physician; providing guidance in clinical practice and monitoring the performance of procedures by the resident physician, in accordance with the privilege sheet; participating in educational events (seminars, etc.) and monitoring the resident physician's participation in them; providing the head of the department with information about resident physicians who have missed classes. When planning the training program and selecting clinics for rotations, special attention is paid to the profile of the institution and the number of patients necessary for the development of the relevant professional skills in residents. During their training, resident physicians manage patients, actively participate in surgeries and procedures, and complete medical documentation in consultation with their supervisor.

In interviews with residents, experts found that faculty members most often organize clinical reviews, bedside teaching at the patient's bedside, discussions of laboratory and instrumental examination results, and mini-lectures directly in the operating room or department. The clinical supervisor is responsible for coordinating practical training, monitoring residents' mastery of professional skills, ensuring access to clinical cases, accompanying residents during surgeries, and providing daily feedback on patient management.

Feedback is provided daily, and residents can ask their supervisor any questions and also have access to medical records and the patient management information system through the supervisor's account (under their control), which facilitates the development of digital competencies and responsibility for the quality of medical records. Online conferences featuring clinical case reviews, video recordings of surgeries, participation in webinars from cardiac surgery societies, and interactive training modules and simulators are used.

Simulation-based training is provided in the institute's modern, well-equipped simulation center. Residents of the accredited educational programme have access to the following simulation equipment: vascular suturing simulators, cannulation and anastomosis models, and resuscitation and intensive care mannequins. The equipment is designed to practice practical skills in vascular anastomosis, cannulation of major vessels, cardiopulmonary bypass, bleeding control techniques, and basic resuscitation procedures. Simulation training is included in the educational programme in years 1–2, totaling 96 hours. One of the most important infrastructure elements is a 91.2-square-meter simulation room, specially equipped for practical training. This room is equipped with modern resuscitation, cardiology, and gastroenterology equipment, allowing for the simulation of a variety of clinical situations. The main goal of the simulation room is to create an educational environment as realistic as possible, facilitating the acquisition of practical skills while strictly adhering to patient safety requirements. Simulators worth 1,300,000 tenge were purchased in 2025. An additional purchase of 1,700,000 tenge is planned for the end of the year.

In addition, a 47-square-meter computer lab is available at the institute to support the scientific and educational process. It houses 30 modern computers with internet access and subscriptions to leading international databases and scientific resources, such as Wiley, Cochrane, Scopus, Sciencedirect, Web of Science, Elibrary, and Physician's Consultant. This provides access to the latest advances in medical science, modern research, and practical recommendations, thereby enhancing the level of professional training and the relevance of acquired knowledge.

The principles of quality, academic integrity, and anti-plagiarism (ESG II Part 1.3) are documented in the "Regulations on the Academic Integrity of Residents and Faculty" (approved in 2023, developed by the Department of Postgraduate and Continuing Education (DPCE) jointly with the Legal Department). JSC "Research Institute of Cardiology and Internal Diseases" (RICID) closely monitors compliance with the principles of academic integrity and the anti-plagiarism policy. The Institute operates a specialized violation detection system, which includes mechanisms to control plagiarism and other forms of academic dishonesty—an agreement with the branch of PLAGIAT.PL, a limited liability

company, in the Republic of Kazakhstan. Violations of this policy, including plagiarism, are subject to strict disciplinary action, underscoring the seriousness of our approach to maintaining academic integrity.

The experts confirmed that the principles of academic integrity in residency programs are applied in areas such as medical record keeping, written assignments, the preparation of scientific articles and reports, research, and interim assessments.

Residents are kept informed by providing them with ongoing access to fundamental internal regulatory documents. First and foremost, this is the "Academic Integrity" document, which details the rights, duties, and responsibilities of resident physicians, as well as the principles of professional ethics. Furthermore, the rights and responsibilities of residents are governed by the Agreement concluded within the training program, which ensures legal certainty and clarity of their status obligations. The director of the educational program, in conjunction with the DPCE, is responsible for this. Residents' ethical conduct is based on the Code of Professional Ethics, internal regulations, and a supervising system that ensures daily monitoring of behavior and professional interactions.

Experts confirm that the educational organization provides residents with the necessary skills and abilities to promote their personal development and future career success (**ESG II Part 1.3**). This is confirmed by the results of a review of documents such as the resident portfolio, competency matrix, simulation logs, educational and methodological documentation, and clinical rotation reports, as well as the results of class attendance, meetings with clinical supervisors and department heads, and resident surveys.

Equality principles, including gender, cultural, and religious ones, are upheld for residents and faculty. This is enshrined in the following documents: the Code of Corporate Culture, the Non-Discrimination Policy, and the Internal Regulations. No violations of these principles were identified during the site visit. The main regulatory document for the educational institution is the Constitution of the Republic of Kazakhstan and the Law of the Republic of Kazakhstan "On Education," which, in Article 3, paragraph 3, establishes the principle of equal rights for all citizens to education, regardless of gender, age, nationality, social status, or other circumstances. According to the data presented, approximately 60% of students studying in the residency program are female. This proportion demonstrates the growing interest of women in pursuing careers in medicine, as well as positive changes in society that promote gender equality and expand opportunities for women in the professional field. The distribution by nationality across all residency specialties shows that over 90% of all students are of Kazakh ethnicity.

Teaching and learning methods are regularly adapted to changing conditions (**ESG II Part 1.5**) and the requirements of practical healthcare. Residency programs successfully implement modern teaching methods based on the principles of evidence-based medicine, interdisciplinary collaboration, clinical reasoning, and the development of independent learning skills. Programs and approaches are developed in accordance with ESG, WFME, and national guidelines. Electronic resources and digital educational platforms such as UpToDate, AMEE, and PubMed are actively used to ensure constant access to up-to-date information, fostering sustainable motivation for independent learning and professional growth at all stages of a career. Simulation technologies, participation in interdisciplinary case studies, case conferences, and educational sessions such as Journal Club are widely used in clinical training.

The selection of the clinical training site for residents is also based on an analysis of the needs for training specialists in adult and pediatric cardiac surgery, as well as high-tech interventions.

Of the two residents surveyed, 100% responded that their instructors use active and interactive teaching methods in their classes.

2.6 Educational programme and learning facilities

Resident training for the accredited educational programme is conducted at 24 clinical sites of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID), as well as at affiliated cardiac surgery centers in Almaty. This includes training at the primary, secondary, and tertiary care

levels. Residents also have access to equipped conference rooms, a simulation room, library resources, as well as international educational platforms and simulation training programs with BLS, ACLS, and PALS certification. Residents can also study in the clinical diagnostic laboratory and specialized centers of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) clinic. An agreement has been signed with each clinical site until 2027 and is indefinite. The Department of Cardiology and the Cardiac Surgery Course are responsible for this. A total of 21 contracts are in effect this year. Memorandums have been signed with the Karaganda Medical University, Astana Medical University, Shavkat Ualikhanov Kokshetau University, University Medical Center, and the Medical Center of the Presidential Administration of the Republic of Kazakhstan.

The experts visited the following clinics:

- Central City Clinical Hospital No. 12
- State-owned utility enterprise based on the right of economic management "Center for Perinatology and Pediatric Cardiac Surgery,"

which has three classrooms and four supervisors involved in the educational process.

Currently, two first-year residents are studying in the accredited program, who are fully provided with clinical training (a sufficient number of patients in their specialty, both elective and emergency).

The selection of clinical sites was based on the structure of the educational programme and the list of related disciplines. The Institute's Academic and Methodological Council, in conjunction with the Director of the Educational Program, has the authority to select/determine the clinical site for resident training.

All of these institutions hold national accreditation certificates that meet the requirements of the Ministry of Health of the Republic of Kazakhstan.

Experts ensured that residents have access to all necessary medical resources. During the survey, residents confirmed that they can work with electronic medical records, participate in surgical interventions, keep observation diaries, and attend daily clinical reviews.

Stakeholder Involvement:

The following employees and stakeholders participated in the planning, development, discussion, and approval of the educational programme (ESG II Part 1.2):

- DPCE administrative staff,
- department faculty,
- clinical supervisors,
- employer representatives (heads of specialized departments),
- current residents.

The Department of Postgraduate and Continuing Education is responsible for the approval and implementation of residency programs. Its tasks, functions, and powers are clearly defined in the document "Regulations on the Department of Postgraduate and Continuing Education," approved by the Chairman of the Board of the Research Institute of Clinical Oncology and Biotechnology on March 16, 2025, Minutes No. 2, Annex 9. The regulations state that the department organizes and oversees the implementation of postgraduate education programs (residency) within the clinical divisions of the Research Institute of Clinical Oncology and Biotechnology, ensuring their effective implementation and compliance with established standards. The residency program was approved at a meeting of the Academic Council of the Research Institute of Clinical Oncology and Biotechnology (date: September 15, 2024).

The directors of the residency educational programs actively participate in the development of the program. Together with the faculty and clinical supervisors, they formulate the structure of syllabi, determine goals, rotation cycles, and educational activities. Discussion of draft programs takes place at meetings of the Educational Activities Committee (EAC) and the Academic Council, where recommendations from leading clinicians, resident opinions (including their reports and feedback forms), and suggestions from the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) administration are considered. Following a comprehensive discussion, the Academic Council

decides on any necessary changes and approves the final version of the programs based on the protocols.

The educational process management reflected in the self-assessment report (Standard 2) and the general management approaches were confirmed during visits to the Education Department and the Quality Assurance Department, as well as in discussions with the director and staff.

The experts reviewed the work of departments, including the Admissions Department, the Cardiac Surgery Department, Endovascular Surgery, Cardiology, Cardiac Rehabilitation, the Anesthesiology Department, Resuscitation and Intensive Care Unit, the Functional and Ultrasound Diagnostics Department, the Radiology Department, and the Clinical Diagnostic Laboratory. A total of 14 meetings were held, and cross-sectional interviews revealed that residents have access to clinical cases, but the level of formalized supervising requires further development.

Resident training in specialty 7R01109 "Adult and Pediatric Cardiac Surgery" is aimed at meeting the needs of practical healthcare, as an analysis of the specialist shortage for 2023 revealed a shortage of cardiac surgeons in the region in emergency and elective surgery hospitals, as well as an insufficient number of pediatric cardiac surgeons.

During discussions with the organization's management, experts learned that the demand for pediatric cardiac surgeons and specialists in the correction of complex congenital heart defects is projected to increase over the next five years. Faculty members confirmed that resident training is conducted directly in clinical departments (operating rooms, cardiac surgery departments, anesthesiology, and intensive care units).

Residents in this specialty can manage patients with conditions such as congenital heart defects, coronary heart disease, valvular defects, aortic dissection, and the consequences of previous cardiac surgery.

During a two-hour practical session on "Adult Cardiac Surgery in the Inpatient Unit" and discussions with residents, the experts observed that the organization promotes the development of residents' practical competencies, where residents deepen their theoretical knowledge, develop clinical reasoning, and develop communication skills.

Strengths	Areas for improvement	Recommendations of the EEC
A stable network of clinical sites covering primary, secondary, and tertiary care		
A large number of patients in the specialty ensures sufficient clinical flow		
Qualified clinical supervisors involved in the training process	supervisor involvement in providing structured daily feedback varies.	Develop checklists and standardized feedback forms for supervisors
Residents have good access to information systems, documentation, and medical records		
Use of simulation technologies and practical simulators	Insufficient simulation training in the early stages of residency	Increase the proportion of simulation classes by including mandatory modules on basic skills
External expert review and annual program updates		
High level of departmental involvement in program		

Strengths	Areas for improvement	Recommendations of the EEC
management		

2.7 Opportunities for higher degrees and research

In the educational organization the following research opportunities are available: access to high-tech clinical diagnostic and surgical facilities, cardiac surgery laboratories, digital surgical archives, modern equipment for intraoperative monitoring, biostatistical support, and international electronic resources (Scopus, Web of Science, ScienceDirect).

As part of the accredited residency program in specialty 7R01109 "Adult and Pediatric Cardiac Surgery," the department's staff conducts research aimed at studying the outcomes of cardiac surgery, improving surgical correction techniques for congenital and acquired heart defects, analyzing the quality of postoperative care, implementing innovative technologies, and optimizing treatment strategies for patients of various ages.

Given that these are first-year residents, there are no publications at the time of accreditation.

Journal clubs are held monthly, where residents review current publications on cardiac surgery, analyze clinical guidelines, evaluate research methodology, study modern approaches to correcting congenital and acquired heart defects, and discuss innovative surgical technologies.

100% of residents surveyed confirmed that they are provided access to research equipment and scientific events organized at the training facilities. For example, they are provided access to operating rooms with high-tech equipment, an intraoperative imaging laboratory, a simulation center, a functional diagnostics department, a clinical statistics database, and participation in meetings of multidisciplinary cardiac surgery teams.

Conclusions of EEC by criteria. Comply with 28 standards: 28 - fully, 0 - partially, 0 - not compliant

Standard 3: ASSESSMENT OF POSTGRADUATE DOCTORS

3.1 Assessment policy and system

A review of assessment tools (test assignments, oral interviews, clinical discussions, case problem and assessment of surgical skills in the operating room and on simulators) revealed that the organization has implemented an appropriate, comprehensive, and stable assessment policy that allows for a comprehensive assessment of the academic achievements of residents in the specialty 7R01109 "Adult and Pediatric Cardiac Surgery."

During interviews, residents described assessment methods, such as assessment of practical manual skills using checklists, OSCEs using cardiac surgical scenarios, testing using clinical protocols, and assessment of patient management at clinical sites. They noted that they were completely satisfied with the transparency and clarity of the procedures. 100% of residents also emphasized that they receive regular feedback from faculty after surgeries, on-call shifts, and practical classes.

The assessment results appeal system is governed by the document "Regulations on the Procedure for Appealing the Results of Knowledge Assessment and Final Certification of Residents." Specialty 7R01109 "Adult and Pediatric Cardiac Surgery" is being implemented for the first time in 2025, and residents are in the initial stages of training. Therefore, there have been no appeals to date, consistent with the current stage of program implementation.

The assessment encompasses not only knowledge and skills, but also professional behavior, surgical tact, teamwork in the operating room, adherence to sterile technique, and communication skills with patients and their families. This is confirmed by the presence of structured professional behavior observation sheets, assessment forms, and regular assessments by cardiac surgeon supervisors (ESG II Part 1.3).

Validation and reliability assessment of resident assessment methods (tests, clinical tasks, and surgical checklists) are carried out through the following methods: expert review by specialized

cardiac surgeons, comparison of results from various assessment methods, and regular revision of the CIS database in accordance with updated clinical guidelines.

The educational institution has a practice of engaging external examiners, which is documented in the "Regulations on External Independent Assessment of Resident Competencies." Leading cardiac surgeons from clinical sites and invited specialists from national cardiac surgery centers participate in the annual final exams, ensuring the independence and objectivity of the assessment. **(ESG II Part 1.3).**

Experts verified the standard data by interviewing the head of the Department of Postgraduate and Continuing Education, MD, N.N. Ivanchenko, and by reviewing the documents regulating resident assessment procedures in the specialty.

The organization has cardiac surgery assessment tools developed by the Department of Cardiology with a cardiac surgery course. The Regulation on the educational programme 7R01109 "Adult and Pediatric Cardiac Surgery" and the system of educational assessment tools were approved at the meeting of the Academic Council No. 2 on May 16, 2023. The assessment tools were reviewed by MD, Professor, Department of Healthcare Policy and Organization, Al-Farabi Kazakh National University. Al-Farabi Abzaliev K.B. and Head of the Department of Cardiac Surgery and Throat Surgery, Master of Medical Sciences B.A. Rakishev. The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) resident assessment policy is enshrined in the institution's Academic Policy, approved by the Chairman of the Board on May 16, 2023, by Protocol No. 2. The document is available at the link: https://ncvb.kz/wp-content/uploads/2025/01/ap_niikvb_2024.pdf.

As part of its annual work, JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has made important changes and improvements:

In 2021, final certification was adapted, with a special emphasis on simulation training, which has improved patient safety through practical training of residents in conditions as close as possible to real clinical situations.

In 2022, formative assessment forms were updated to include criteria related to professional behavior and ethical aspects, facilitating the development of residents' competencies in medical ethics and interpersonal interactions.

In 2023, new assessment tools for interdisciplinary interaction and teamwork were introduced, reflecting the current trend toward developing team skills and interdisciplinary collaboration in medicine.

In 2024, assessment elements for communication and ethical-legal skills were added, allowing for a more comprehensive assessment of residents' competencies in patient interactions and legal compliance.

Responsibility for reviewing the assessment system is shared between the Department of Postgraduate Education (DPED) and the Academic Council and is conducted annually. They jointly develop and implement the necessary changes, monitoring their effectiveness.

Head of the Department of Postgraduate and Continuing Education, PhD N.N. Ivanchenko The Institute announced that an update to the CIS is planned for the next academic year in connection with the implementation of the new European **ESC/EACTS** guidelines for the management of patients with heart defects and updated approaches to perioperative care.

Resident assessment results are documented as follows: in electronic transcripts, in the academic achievement monitoring system, in reports on completion of surgical training, in assessment protocols, and in individual resident portfolios, which record the surgical interventions performed and the competencies acquired.

Given that program 7R01109 "Adult and Pediatric Cardiac Surgery" was implemented this year and residents have not yet reached the final assessment stage, a final exam was not administered. The final assessment results will be analyzed and reflected in subsequent self-assessment cycles.

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) resident assessment policy is set forth in the institution's Academic Policy, approved by the Chairman of the Board on May 16, 2023, by Protocol No. 2. https://ncvb.kz/wp-content/uploads/2025/01/ap_niikvb_2024.pdf.

There is a document on appealing the assessment results; the detailed procedure for the appeals committee is regulated by Section 9.6.3 of the Academic Policy of the Research Institute of Cardiology and Biotechnology, which was approved on May 16, 2023. To date, there have been no appeals from residents.

During a visit to the organization and an interview with the Head of the Department of Postgraduate and Continuing Education, PhD N.N. Ivanchenko, the committee was convinced of the presence of a transparent, systematized, and accessible documentation system, including: annual reports; operational plans; regulations of the Department of Cardiac Surgery; agreements with residents and faculty; orders and minutes of meetings; academic integrity policy; journals of registration of surgical interventions of residents (portfolio); educational and methodological documentation; Assessment tools (checklists, OSCE stations).

During a site visit, management was asked, "Are external examiners involved to enhance the fairness, quality, and transparency of the assessment process?" The response was that external examiners regularly participate in the admissions committee and interim assessment of residents.

A review of the website revealed that the necessary documents are posted: curricula, class schedules, final assessment schedules, surgical training requirements, a list of competencies for the specialty 7R01109 "Adult and Pediatric Cardiac Surgery," as well as current information on educational events, internships, and clinical simulation training, which is regularly updated.

To the experts' question, "Are external examiners involved to enhance the fairness and transparency of the assessment process?" management responded, "Yes, external cardiac surgeons from the core clinical center and national cardiology centers participate annually in the assessment of practical skills and final assessment."

The four employers surveyed also noted that graduate training is consistent with current developments in medical practice, science, and education. However, employers also made recommendations for organizing training that were consistent with the 2022 faculty survey. The most important topic raised by employers was the lack of practical training for graduates. Employers mentioned the importance of high-quality internships and the need to increase internship hours (65% of respondents).

During interviews with faculty members of the Cardiac Surgery residency program, R.M. Tuleutaev, A.T. Musagalieva, and G.B. Sultanov, and with faculty members of related disciplines, A.B. Parimbekov, A.O. Kalzhanov, A. Bagramov, A. Nikitenko, A.K. Surtai, and A.A. Ibragimova, the experts received convincing information that the assessment methods are standardized, align with the specifics of the specialty, are based on international approaches to surgical skills assessment (OSATS, DOPS), and are communicated to students in a timely manner.

Residents noted that the assessment procedures are clear, tests are administered in a timely manner, pre-exam consultations are held regularly, and practical skills are assessed objectively using clear criteria. Employers reported participating in resident assessments, as they are included on certification committees and in practical skills assessments. However, the educational institution has not yet established a systematic and formalized feedback system for employers, which experts identified as an area for development.

Employers noted that the most important skills for cardiac surgeons are: surgical technique, vascular suturing skills, hemostatic technology management, echocardiography and angiography interpretation, and knowledge of modern perioperative management protocols.

At the same time, there are challenges in developing assessment tools, including time constraints for cardiac surgeon faculty, the need to integrate new technologies (3D models) into assessments, and the need for regular psychometric evaluation of the CIS quality.

The experts proposed the following:

1. KPIs for assessing residents using the OR-Check (OR-Check (Operation Room Check):

KPI	Indicator	Goal/Standard
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KPI	Indicator	Goal/Standard
Preparation for surgery	% of correctly prepared surgeries	≥ 90%
Surgical technique	Number of successfully completed surgical stages without errors	≥ 85%
Compliance with safety standards	Number of cases where all safety protocols were followed	100%
Teamwork	Number of positive assessments from assistants and anesthesiologists	≥ 90%
Professional conduct	supervisor assessment based on ethical and professional criteria	≥ 95%
Documentation	Completeness and accuracy of surgical sheets and the OR-Check	100%

2. Example of a psychometric analysis matrix for test items (for inclusion in the report)

Question No.	Topic	Difficulty Index	Discrimination Index	Distractor Analysis	Solution	Comment
1	Heart Anatomy	0,65	0,32	All distractors are functional	Keep	Good task
2	CABG Technique	0,22	0,05	2 distractors are nonfunctional	Rework	Too difficult, does not differentiate between strong performers
3	Congenital Defects	0,48	0,41	Normal distribution	Keep	Excellent performance
4	ECMO Complications	0,78	0,12	One distractor is too obvious	Edit	Too easy
5	Postoperative Management	0,52	0,28	Good distribution	Keep	—

3.2 Assessment in support of learning (formative assessment)

The assessment system regularly identifies residents' strengths and weaknesses, as it includes multi-level formative assessment based on observation of practical skills, mini-clinical exams (mini-CEX), direct observer formats, clinical case discussions, and test questions Mini-modules on key areas of cardiac surgery.

Formative assessment is conducted at each stage of practical training and is aimed at monitoring the resident's ongoing progress. It includes observing bedside procedures, completing assessment forms on acquired skills, and maintaining a portfolio. Formative assessments are recorded in the information platform—the trainee's personal account (AIS "Platonus"), which is reviewed by experts. Faculty regularly provide feedback to residents on the assessment results.

JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has a multi-level feedback system for residents, including ongoing and final competency assessments. Supervisors regularly provide formative feedback on clinical performance using approved forms with recommendations and self-analysis. After each rotation, a summative assessment is conducted on a 5-point scale on key competencies (supervision, communication, safety, etc.), followed by a discussion of the results and a development plan. An interim assessment is provided, accompanied by the issuance of individual recommendations (admission to the next stage, re-rotation, etc.). All assessments are discussed with the resident, including a review of errors and specific recommendations for improvement (use of

simulations, consultations, etc.). Residents' feedback on their assessments is published in the AIS (resident's personal account). In interviews, residents confirmed that they receive feedback after completing their training. Faculty regularly provide feedback to residents following their assessments. Feedback from residents on their assessments is collected in the form of satisfaction questionnaires, monthly mini-surveys, free written comments, and department reports. In interviews, residents confirmed that they receive feedback after completing their training. The experts reviewed the resources for organizing knowledge and practical skills assessment, namely: a simulation center for skills training, educational and clinical classrooms, operating rooms, an electronic assessment system, a resident's personal account in the Platonus automated information system, a skills and privileges log, resident questionnaires, case problem, and syllabi for the operating room.

The experts determined that the selection of resident assessment methods is based on a competency-based and clinically oriented approach, as the practical component of training is the core component. For example, ongoing assessment methods such as mini-CEX, discussion of surgical strategies, and analysis of echocardiograms and coronary angiograms facilitate interprofessional learning.

Additionally, the OR-Check (Operational Activity Assessment) proposed by the experts will promote integrated training and a focus on clinical skills, allowing for objective recording of resident progress in the operating room.

The established assessment methods ensure that the resident has mastered all sections of the educational programme and acquired the necessary practical skills.

Residents report that faculty regularly provide them with information on their assessment results, including progress, recommendations, and identified areas for improvement (ESG II Part 1.3).

The experts proposed the following:

1. Formative Assessment KPI Model for Specialty 7R01109

№	KPI	Target Value	Program Value
1	Percentage of residents completing the Mini-CEX monthly	100%	Continuous monitoring of clinical skills
2	OR-Check completion for basic skills	≥ 90%	Progress assessment in the operating room
3	Number of simulation DOPS per semester	≥ 4	Safe mastery of techniques
4	Feedback time	≤ 72 ч	Improving learning effectiveness
5	Resident satisfaction with formative assessment	≥ 85%	Quality of the learning process
6	Percentage of faculty members calibrated	≥ 80%	Reducing assessment errors
7	Implementation of individualized resident intervention plans	≥ 85%	Targeted improvement of results
8	Reduction in simulation errors	-20% в год	Progressive development of competencies
9	Documentation of formative assessment	100%	Compliance with international requirements
10	Resident participation in clinical reviews	100%	Teamwork and clinical reason

Roadmap 2025–2028 (monthly and quarterly), if necessary:

2025 — Foundation and Standardization

Period	Activities	Expected Result
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Period	Activities	Expected Result
Q1 2025	Create a working group on the assessment system; revise the CIS	Determining the current quality level
Q2 2025	Develop new forms: mini-CEX, DOPS, and OR-Check	Relevant instruments for cardiac surgery
Q2–Q3 2025	Introduce monthly formative assessment; Feedback log launch	Beginning of resident progress monitoring
Q3 2025	First psychometric analysis of tests	Identification of weak questions
Q4 2025	Creation of an OSATS data bank for key skills: suturing, cannulation, and anastomosis	Unified assessment methodology

2026 — Implementation of simulation technologies and calibration

Period	Activities	Expected Result
Q1 2026	Managing OSATS simulations for complex skills: valve work, ECMO	Mastering skills in a safe environment
Q2 2026	Training of instructors: "Examiner Calibration" course	Increasing objectivity and consistency
Q2–Q3 2026	Development of a video archive of surgeries for analysis	Use Video reviews
Q3 2026	Introduction of an electronic resident portfolio	Real-time digital progress
Q4 2026	Psychometric revision of tests (Cycle 2)	Improving the reliability of the CIS

2027 — Optimization and international alignment

Period	Activities	Expected Result
Q1 2027	External international review (OSATS) (experts from Russia, Turkey, and Germany)	Regulation according to international standards
Q2 2027	Implementation of structured oral assessment (SOE)	Improving clinical reasoning assessment
Q3 2027	Comparative analysis of WFME competencies	Identifying strengths and weaknesses
Q4 2027	Creation of unified standards for the final OSCE	Standardized final assessment

2028 — Completion, integration, and accreditation

Period	Activities	Expected Result
Q1 2028	Final psychometric analysis of the CIS	High reliability and validity
Q2 2028	Digital assessment quality dashboard (KPI dashboard)	Unified monitoring system
Q3 2028	External system assessment (pilot WFME-style review)	Readiness for international accreditation
Q4 2028	Update of all methodologies and policies	Completion of the modernization cycle

Roadmap KPIs:

Focus	KPI	Target value 2028
Psychometrics	Test reliability (Cronbach's alpha)	≥ 0.80
OSATS/OR-Check	Inter-rater agreement	≥ 0.75
Formative assessment	Percentage of residents with monthly mini-CEX	100%
Feedback	Feedback delivery time	≤ 48 hours
Simulation	Number of simulation training sessions per year	≥ 12
Digitalization	Electronic portfolio coverage	100%
Resident satisfaction	Overall indicator	≥ 90%
Employer participation	In OSATS/examinations	≥ 60%
Faculty calibration	Completed training	≥ 85%

Risks and preventative measures

Risk	Probability	Prevention
Low faculty readiness	Medium	Training, calibration
Insufficient simulation time	High	Schedule expansion
Uneven assessment	Medium	Dual examination
Insufficient video materials	Low	Creation of an in-house archive
Psychometric instability	Medium	Annual audits

Expected results by 2028

- A fully psychometrically valid assessment system.
- A comprehensive OSCE/OSATS for cardiac surgery.
- A digital portfolio for each resident.
- A unified bank of simulation scenarios.
- An internationally comparable assessment system.
- Faculty are certified examiners.
- Real-time performance monitoring.
- Sustained compliance with WFME and ESG requirements.

3.3 Assessment in support of decision-making (summative assessment)

The summative (final) assessment of residents includes a final assessment of program completion and achievement of set goals, an analysis of the resident's portfolio, and a final interview on completed clinical cases and operational skills, ensuring the objectivity and transparency of knowledge and skills assessment.

The criteria for admission to the final assessment are: completion of the established minimum practical skills, mini-CEX, completion of all sections of the electronic portfolio; 100% completion of the interim assessment; absence of academic failure; and participation in scientific and clinical activities within the scope defined by the residency program. This is documented in the "Regulations on the Final Assessment of Residents" and the Work Program for Specialty 7R01109 "Adult and Pediatric Cardiac Surgery."

Residents are eligible for independent examination upon successful completion of the department's final internal assessment, confirmation of completion of all competencies, and submission of a preparedness application form. Residents in other specialties pass the independent examination in 75–89% of cases, demonstrating a sufficient level of readiness for the final assessment.

Residents' clinical decision-making process is assessed at a structured clinical OSCE station and through a clinical scenario analysis (case-based discussion). It reflects the resident's ability to assess risks, formulate a diagnosis, select a surgical approach, consider contraindications, predict outcomes, and justify the choice of intervention or surgery.

The fairness and objectivity of the summative assessment is confirmed through a dual examination process, peer review of assessment materials, the use of standardized checklists, and the independent participation of external experts. It is documented in the "Assessment Integrity Policy" and examination committee protocols.

The reliability and validity of quantitative data from resident assessments is ensured by the Department of Cardiology with its course in cardiac surgery (adult and pediatric) and the Department of Postgraduate Education, which verifies data, controls quality, and maintains final assessment protocols. (ESG II Part 1.3)

The experts proposed the following:

1. Matrix "Competencies - Summative Assessment Methods" (may be used in their educational activities if deemed necessary)

Competency	Formative Assessment	Summative Assessment
Clinical Reasoning	Mini-CEX, Case Discussion	Mini-CEX, Case Discussion
Technical Skills (Operating Room)	OR-Check, DOPS	OR-Check, DOPS
Working in an Operating Room Team	360°, Observation in the OR	360°, Observation in the OR
Diagnostic Skills	Tests, Analysis	Tests, Analysis
Communication	Observation, Feedback	Observation, Feedback
Professionalism	Behavioral Assessment	Behavioral Assessment
Scientific Training	Reports, Mini-Projects	Reports, Mini-Projects
Patient-Centered	Observation in the Department	Observation in the Department

2. RESIDENT'S LOGBOOK (LogBook):

1) General information about the resident

Field	Data
Resident's full name	_____
Year of admission	_____
Educational organization	JSC "Research Institute of Cardiology and Internal Diseases" (RICID)
Department	Cardiology with a course in cardiac surgery (adult and pediatric)
Supervising supervisor	_____
Supervisor's contact information	_____

2) Logbook structure

The logbook includes the following mandatory sections (according to WFME):

- 1. Rotations (calendar schedule)**
 - 2. List of mandatory clinical competencies**
 - 3. Registration of completed clinical cases**
 - 4. Registration of completed surgical interventions**
 - 5. Technical skills assessment (OR-Check, DOPS, OSATS)**
 - 6. Clinical reasoning assessment (mini-CEX, Cbd)**
 - 7. Participation in shifts and bedside rounds**
 - 8. Participation in Research activities**
 - 9. Seminars, conferences, educational events**
 - 10. Quarterly supervisor assessment**
 - 11. Final certification and competency completion**
- 3) Resident rotations (in accordance with the curriculum)**

Rotation section	Base	Period	Supervisor	Signature
Adult cardiac surgery	Cardiac surgery center	–		
Pediatric cardiac surgery	Republican center for pediatric cardiac surgery	–		
Intensive care unit	ICU	–		
Echocardiography, functional diagnostics	Ultrasound room	–		
Endovascular surgery	Catheterization laboratory	–		
Cardiology	Cardiology hospital	–		
Simulation center	JSC "Research Institute of Cardiology and Internal Diseases" (RICID)	–		

4) List of key competencies (WFME Core Competencies)

Clinical competencies (Required for mastery)

Competency	Level of mastery	Assessment method	Mark
Collection History	Independent	mini-CEX	
Physical examination	Independent	mini-CEX	
ECG interpretation	Independent	Test/task	
Echocardiography interpretation	Under supervision	CbD	
CT and MSCT cardiac interpretation	Under supervision	CbD	
Diagnosis formulation	Independent	SOE	
Congenital heart disease management	Under supervision	OSCE	
Coronary heart disease management	Independent	CbD	
Post-cardiopulmonary bypass management	Independent	DOPS	

5) Clinical case registration

6) Patient management (adults)

№	Diagnosis / nosology	Number of patients B	Level of participation	Supervisor signature
1	Coronary heart disease (CHF, coronary artery stenosis)		Assistance/management	
2	Aortic aneurysm		Participation	
3	Valvular defects		Participation	
4	Postoperative complications		Management	

7) Patient management (children)

№	Defect	Number	Level of participation	Signature
1	VSD		Participation	
2	ASD		Participation	
3	Tetrad Fallot		Participation	

8) Registration of surgical interventions

WFME requires recording:

✓ Observation

- ✓ Assistance
- ✓ Performance under supervision
- ✓ Independent performance

- Main operations

Operation	N performed	Level	Signature
Coronary artery bypass grafting (CABG)		Assistance/monitoring	
Valve replacement		Assistance/monitoring	
Valve repair		Assistance	
Valve repair		Participation	
CPB placement		Participation	
Aortic/vena cava cannulation		Under supervision	

9)OR-Check / DOPS / OSATS Reports

Example of an OR-Check fragment:

Operative Stage	Performed	Yes/No	Comment
Purse-string suture placement	accurate		
Cannulation	atraumatically		
Hemostasis monitoring	complete		

10) Research Activities

Activity	Type	Year	Signature
JSC 'Research Institute of Cardiology and Internal Diseases" (RICID) project	Research		
Publications	Article/Abstract		
Conferences	Report		

11) Participation in conferences and educational events

Event Title	Format	Date	Signature
Cardiac Surgery Symposium	Conference		
Teamwork in the Cardiac Unit	Master Class		
Echocardiography for Congenital Heart Disease	Seminar		

12) Quarterly Supervisor Assessment

Assessment in the following areas:

- ✓ Professionalism
- ✓ Clinical Reasoning
- ✓ Operational Skills
- ✓ Communication
- ✓ Responsibility
- ✓ Logbook Progress

13) Resident Final Certification

Final Assessment Element	Date	Assessment	Signature
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Final Assessment Element	Date	Assessment	Signature
OSCE			
Final Test			
Subject Oral Examination (SOE)			
Portfolio Closure			
Supervisor's Conclusion			

3.4 Quality assurance of the assessment system

The mechanisms that ensure the quality of all assessment methods used and the existing resident assessment system as a whole include standardization of assessment tools, independent review of assessment tools, participation of external experts, and an annual assessment quality audit by the Department of Graduate Education.

The educational organization engages independent examiners to evaluate residents. The overall concept of the assessment system is aimed not only at measuring the level of residents' training but also at improving the quality of teaching and the educational programme itself. It is based on a comprehensive approach, including collecting feedback, regular monitoring, and supervisor development. Supervisors—physicians with at least five years of qualifications or experience who are trained in modern educational technologies, including formative and summative assessment methods, as well as feedback—must play a key role in the system (clause 5 of the clinical supervisor Regulations, approved by the Chairman of the Board of the Research Institute of Clinical and Veterinary Medicine on May 16, 2023).

Mandatory internal training covers issues of competency assessment, patient safety, and methods for developing resident independence. The results of formative and summative assessments are discussed at meetings of the Department of Cardiology with the Cardiac Surgery Course (Adult and Pediatric) and the Academic Board of the Research Institute of Cardiology and Cardiac Surgery. Analytical conclusions regarding the assessment methods and content are drawn, along with recommendations for improving the assessment tools.

Resident assessments include questions on patient safety. Competency assessment covers six key areas, balancing clinical, pedagogical, and ethical aspects. Recommendations for Improvement are provided during the assessment process, enabling the adaptation of individual curricula for each resident and the enhancement of supervisor training. Assessment results are analyzed at meetings of the Academic Council, and these are used to adjust curricula, update monitoring and assessment forms, and conduct assessment skills workshops.

The Department of Cardiology with the Cardiac Surgery Course reviews formative and summative assessment methods for other residency specialties each academic year. The review is documented in department meeting minutes and updated versions of the assessment tools included in the program's methodological materials. The JSC "Research Institute of Cardiology and Internal Diseases" (RICID) has a systematic mechanism for regularly reviewing resident training assessment methods and systems. This mechanism is aimed at continuously improving the quality of the educational process, patient safety, and ensuring compliance with national and international standards for accreditation, including Standard **ESG II Part 1.3**.

The main components of the mechanism include:

1) Analysis of assessment results: The review is based on a comprehensive analysis of formative and summative assessment data, final assessments, as well as feedback from residents, faculty, supervisors, employers, and external experts.

2) Updating assessment tools: The joint work of the DPCE and educational programme directors includes an annual review of the validity and compliance of assessment tools (such as tests, cases, and assessment forms) with the stated learning objectives. 3) Review of Results: The Academic Council analyzes the assessment results, reports, and anonymous questionnaires completed by residents.

Particular attention is paid not only to the content of the educational programme but also to the objectivity of the assessment system.

As part of the annual work, important changes and improvements were made in all residency specialties:

In 2021, the final assessment was adapted, with a special emphasis on simulation training, which improved patient safety through practical training for residents in conditions as close as possible to real clinical situations.

In 2022, formative assessment forms were updated, including criteria related to professional behavior and ethical aspects, promoting the development of residents' competencies in medical ethics and interpersonal interaction.

In 2023, new assessment tools for interdisciplinary collaboration and teamwork were introduced, reflecting the current trend toward developing team skills and interdisciplinary collaboration in medicine.

In 2024, assessment elements for communication and ethical-legal skills were added, allowing for a more comprehensive assessment of residents' competencies in patient interactions and legal compliance.

Responsibility for reviewing the assessment system is shared between the DPCE and the Academic Council. They are jointly developing and implementing the necessary changes, monitoring their effectiveness.

The experts were familiarized with the results of the implementation of the resident assessment system for 2024–2025, as presented by the educational program. Since residents in specialty 7R01109 "Cardiac Surgery (Adult, Pediatric)" only began training this academic year and have not yet completed formative and summative assessments, the analysis was conducted based on existing assessment procedures and materials for residency programs in other clinical areas.

The data presented demonstrate positive progress in the development of competencies by residents in other specialties, the absence of academic failures, a high rate of successful completion of formative assessments, and the proper quality of assessment procedures, confirmed by documented assessment forms and OSCE protocols. These results confirm the sustainability and effectiveness of the current assessment system, which will be further applied to residents in the specialty "Cardiac Surgery (Adult, Pediatric)."

The experts proposed the following:

1. KPI model for the cardiac surgery resident assessment system (7R01109) (may be used in their educational activities if deemed necessary)

№	Indicator (KPI)	Measurement method	Target value/standard	Assessment frequency	Responsible person
1	Ensuring the psychometric reliability of tests	Reliability coefficient (Cronbach α)	≥ 0.8	Annually	Department of Postgraduate Education + Department
2	Validity of assessment instruments (formative and summative)	Comparison of results with expert assessment, analysis of compliance with WFME competencies	$\geq 90\%$ compliance	Every semester	Department of Cardiac Surgery
3	Assessment objectivity	Inter-rater reliability	$\geq 85\%$	Annually	Department of Cardiac Surgery + external experts

No	Indicator (KPI)	Measurement method	Target value/standard	Assessment frequency	Responsible person
4	Availability and timeliness of feedback to residents	Tracking the publication of formative assessment results	100% feedback within 7 days of assessment	Quarterly	Residency Program Director
5	Completeness of clinical competency assessment	Percentage of mastered competencies (mini-CEX, DOPS, OR-Check, OSCE table)	≥95% of competencies mastered by the end of the semester	Every semester	Department of Cardiac Surgery
6	Participation of independent examiners	% of OSCE and OR-Check stations with external Expert	≥30%	Annually	Department of Postgraduate Education

Note: KPIs are formulated to ensure compliance with WFME, ESG, and ECAQA requirements for competency assessment, patient safety, and professional ethics.

Conclusions of EEC by criteria. Comply with 13 standards: 2 - fully, 0 - partially, 0 - not compliant

Standard	Standard Compliance	Recommendations for Improvement
3.1.2	Partially Compliant	It is recommended to implement a KPI system for formative assessment of the residency educational program's control and measurement tools based on the 2025–2028 Roadmap, with regulated monitoring of results and the use of structured assessment tools, including the resident's LogBook and Operating Room Check (OR Check), to document and analyze individual clinical learning progress.
3.1.4	Partially Compliant	It is recommended that psychometric evaluation of assessment tools be considered when developing and revising resident learning outcome assessment tools, using the data obtained to make academic decisions.

Standard 4: POSTGRADUATE DOCTORS

4.1 Selection and progression policy

The educational institution has an approved policy for the admission of residents, as outlined in the document "Rules for Admission to the Residency Program of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) for 2022–2025," approved by the Chairman of the Board of the Scientific Research Institute of Clinical and Clinical Biochemistry on June 3, 2022.

Resident admissions procedures are based on national legislation and internal regulations, namely, Order No. 600 of the Ministry of Education and Science of the Republic of Kazakhstan dated October 31, 2018, Order No. RK MOH-270/2020 of the Ministry of Health of the Republic of Kazakhstan dated December 15, 2020, the Law of the Republic of Kazakhstan "On Education," and the Academic Policy of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID).

Transparency of the selection process and equal access to residency programs are achieved through the publication of criteria, stages, and deadlines for admission on the official website of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), formalized competitive selection procedures, and documentation of all assessment stages, as confirmed by paragraph 2.3 of the document "Residency Admission Rules of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) (ESG II Part 1.4).

The educational institution has created a barrier-free learning environment, including ramps, elevators, call buttons, and sanitary facilities for individuals with disabilities, demonstrating the practical implementation of equal access principles.

Approaches to the admission and transfer of residents from other educational institutions are reflected in Section 13.3 "Academic Integrity" of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) Academic Policy. This policy takes into account academic differences, comparability of educational programs, the presence of prerequisites, and the completion of the academic period, consistent with international practice and ESG requirements.

The appeals procedure following admission to residency is outlined in the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) Residency Admission Rules and is also regulated by Order No. 600 of the Ministry of Education and Science of the Republic of Kazakhstan. At the time of the external assessment, no appeals were filed under the Adult and Pediatric Cardiac Surgery program (**ESG II Part 1.4**).

Student representatives are involved in the development and discussion of resident admission and selection policies, specifically through resident participation in the Educational Programs Committee and Academic Council meetings. Resident feedback is used in discussing admissions approaches, but a systematic survey of resident satisfaction with the admissions process was not conducted at the time of the assessment, which was identified by experts as an area for development.

The admissions and selection policies, as well as the number of residents, are reviewed annually, with responsibility for this process assigned to the Department of Postgraduate and Continuing Education (DPCE).

From 2022 to 2025, over 100 residents were admitted to all educational programs at the Research Institute of Cardiology and Cardiology, including two residents in the Adult and Pediatric Cardiac Surgery program.

The educational organization is analyzing the practical healthcare needs for cardiac surgery specialists. This year, the "Adult and Pediatric Cardiac Surgery" program has two residents, and the clinical resource capacity meets these needs. The sources of information on specialist needs include data from the healthcare department, clinical workload statistics, the number of surgeries and procedures, healthcare system staffing requests, and the results of an internal analysis of the clinical departments.

Thus, the standard criteria are generally met; however, certain shortcomings have been identified related to the lack of a regular, formalized survey of residents' satisfaction with the admissions and selection procedures.

4.2 Performance improvement and exit from the programme

Processes and opportunities for improving the academic performance and professional development of residents, as well as the conditions under which a resident may be expelled from the program, are set out in the Academic Policy of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), approved by the Chairman of the Board of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID). This document regulates the mechanisms for academic support, progress monitoring, program advancement conditions, and grounds for expulsion, including notification and decision-making procedures.

Academic advising for residents is provided at the department level, clinical sites, and the Department of Postgraduate and Continuing Education (DPCE) and is based on the " JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) Academic Policy." The practice of academic advising, personal support for residents, and the development of not only professional but also universal competencies were assessed by experts through an analysis of internal regulatory documents and interviews with residents, graduates, faculty, and DPCE representatives.

Interviews with residents and graduates revealed that advising support from supervisors and departments is accessible, timely, and tailored to individual educational needs, including preparation for exams and clinical activities.

Faculty and clinical supervisors prevent situations involving unexpected incidents involving residents that could potentially cause patient harm through strict adherence to privilege sheets, ongoing clinical supervising, pre-briefings, clinical case reviews, and incident review within the patient safety management system. According to faculty, no similar incidents resulting in patient harm due to residents were recorded in other residency specialties during the period 2022–2025.

At the same time, clinical departments have developed internal department policies that stipulate requirements for residents to adhere to JCI standards, principles of patient-centered care, rules of professional ethics, and patient safety. Each resident is informed of and applies informed patient consent for examinations, treatments, and medical procedures in their clinical practice. Before classes begin, residents undergo training on compliance with the rules of conduct in the medical organization and sign a document confirming completion of an introductory safety and ethics briefing, which was confirmed by the residents during meetings with experts.

Social, financial, and personal support for residents is provided in accordance with the Academic Policy of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), the Labor Code of the Republic of Kazakhstan, the Code "On Public Health and the Healthcare System," and the Institute's internal regulations. This support is documented in the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) local regulations and personnel orders. For the period 2022–2025, support was provided to all residents in other specialties studying under state funding.

This support included access to educational and clinical resources, organizational and advisory assistance, and participation in scientific and educational events. To provide social support to residents, supervising from senior residents and flexible shift planning were organized to facilitate adaptation and teamwork. Financial support for residents is provided through a state stipend, the amount of which is established in accordance with Decree No. 116 of the Government of the Republic of Kazakhstan dated February 7, 2008, and through additional support mechanisms enshrined in the document "Regulations on the Provision of Paid Educational Services by the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID)," which provides for a discount of up to 50% for Institute employees studying in residency.

Psychological support for residents is provided through individual consultations with curators, supervisors, and staff of the DPCE, as well as informal supervising in clinical departments. The confidentiality of such assistance is regulated by the Academic Policy and internal regulations of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID). Resources for the implementation of these measures are allocated from the educational institution's budget under the educational expenditure line, and the management of the Research Institute of Clinical Oncology and Biotechnology and the DPCE are responsible for their distribution.

To help residency graduates plan their careers, DPCE staff and program curators conduct advisory and outreach activities. The employment rate for graduates of all residency programs was 100% (of those eligible for placement) in the years analyzed. A graduate career center operates in accordance with the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) Career Center Regulations, approved by order of the Institute's management (**ESG II Part 1.4**).

The experts noted that there were no graduates in the "Adult and Pediatric Cardiac Surgery" educational programme at the time of the assessment, preventing an analysis of individual employment rates. However, the support and career counseling system is generally functional and meets standard requirements.

4.3 International medical graduates

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has an official document, "Recognition and Nostrification of Foreign Qualifications Policy," which regulates the recognition of diplomas and qualifications of international medical school graduates upon admission to residency. This policy has been developed in accordance with the national legislation of the Republic of Kazakhstan, requirements for the recognition of educational documents, and the internal regulations of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID).

Admission of international applicants to residency programs is carried out in accordance with the Rules for Admission to Residency at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), which are officially published and ensure transparent selection procedures, equal access to educational programs, and a non-discriminatory approach regardless of applicants' citizenship.

During the audited period, no foreign citizens were admitted to the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) residency, including those in an accredited educational program. This fact was confirmed by the submitted documents and interviews with representatives of the administration and the Department of Postgraduate and Continuing Education.

The document "Academic Policy of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID)" guarantees equal academic and clinical opportunities for all residents, including foreign citizens, upon admission. A training agreement is signed with each resident, a copy of which is given to the resident, and a second copy is kept at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID). The agreement details the rights and obligations of the parties, the terms of study, the assessment procedure, grounds for dismissal, as well as provisions on confidentiality and liability.

The Department of Postgraduate and Continuing Education (DPCE) is responsible for identifying and monitoring potential challenges faced by international residency applicants. During interviews, DPCE staff reported that when enrolling foreign citizens, the primary areas of focus are recognition procedures, adaptation to clinical protocols, the regulatory environment, and educational requirements of the Republic of Kazakhstan.

At the time of the external assessment, there were no residents studying at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) who did not speak the state language or Russian. Therefore, the experts did not identify any barriers related to language adaptation or professional clinical training.

If admitted, foreign residents have the opportunity to provide feedback on the residency program through questionnaires and written requests to the DPCE, including confidential feedback channels. During the review period, no negative feedback was recorded from foreign residents, due to the lack of such students. Experts have determined that upon enrollment, international residents will have equal access to all educational and clinical resources at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), including simulation facilities, libraries, electronic databases, clinical units, and consulting support, ensuring an inclusive and safe educational environment.

The educational organization has identified potential risks and areas of support that international medical school graduates may face during the selection, enrollment, adaptation, and professional clinical training stages. To this end, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has established the following: counseling procedures for admission, recognition, and training conditions; an academic and clinical supervising system applicable to all residents; feedback mechanisms, including surveys, inquiries, and personal consultations at the DPCE; and appeals and complaint review channels that ensure transparency and trust.

When international students begin training, these mechanisms allow for the prompt identification of difficulties, the development of corrective measures, and the provision of support to residents throughout their training. Experts noted that the existing resident support system at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) can be scaled up to accommodate international graduates without structural changes.

Thus, despite the absence of international residents during the analyzed period, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has the regulatory, organizational, and resource readiness to accept and support international graduates, which meets the requirements of ***Standard 4.3 and ESG principles.***

4.4 Postgraduate doctor work and study

At the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), residents are trained according to a structured educational programme that defines learning objectives and outcomes,

academic and clinical workload, work hours, areas of responsibility, and expected professional competencies. The program is implemented based on approved syllabi, an academic calendar, and individual curricula, ensuring the transparency and manageability of the educational process.

The clinical supervising system is formalized and covers all residents. Residents' participation in providing medical care is carried out in stages, strictly within the framework of a privilege list consistent with international approaches such as EPAs and graded responsibility. This minimizes risks to patient safety and ensures an adequate level of resident responsibility.

Residents are promptly and fully informed about the forms of ongoing monitoring and final assessment. Information about examinations and assessment requirements is publicly and accessible. Experts have confirmed the transparency and standardization of assessment procedures.

Residents actively participate in all clinical and educational activities organized by clinical sites, including bedside rounds, conferences, consultations, on-call shifts, and scientific events. Clinical workload is balanced with academic activities and does not dominate the program.

The organization provides mechanisms for additional training during forced breaks (pregnancy, illness, military service, transfer, or rehabilitation), implemented through individual curricula without reducing learning outcomes.

Combining work and postgraduate training is permitted under special circumstances, provided the quality and duration of training is maintained. Senior residents may be employed for up to 0.5 full-time positions. Quality control of training is ensured by supervisors and program coordinators.

4.5 Postgraduate doctor safety

At the JSC "Research Institute of Cardiology and Internal Diseases" (RICID), the legal status of a resident in providing medical care to patients is clearly defined and documented. Residents are not considered independent subjects of medical practice. Their participation in providing medical care is carried out solely as students, within the framework of an approved educational program, and under the constant supervision of a clinical supervisor.

The resident's legal status is regulated by an educational services agreement concluded between the resident and the educational institution. This agreement is not an employment or civil contract and reflects the educational nature of the resident's activities. A copy of the agreement is kept in the resident's personal file and is given to the student. The agreement defines the rights and obligations of the parties, the resident's status, the conditions for practical training, and liability and safety issues.

The resident's participation in clinical activities is carried out in accordance with a privilege list, which is approved by the director of the educational programme and is revised as the student's professional competencies develop. During the initial training, residents are permitted to perform a limited range of clinical procedures under the direct supervision of a supervisor; during the final stages of training, the range of clinical activities expands, but the supervisor maintains supervision. This phased approach is consistent with the principles of graded responsibility and ensures the safety of patients and students.

Residents' physical safety is ensured by a system of regulatory and organizational measures. Before beginning training, each resident undergoes a mandatory introductory briefing on safety, occupational health, fire safety, infection control, medication handling, and emergency procedures. Completion of the briefing is confirmed by the resident's personal signature. Residents are also familiarized with the internal regulations of their clinical departments and the rules for safe work in the clinical environment.

All residents undergo mandatory medical examinations and obtain healthcare certificates in accordance with the current legislation of the Republic of Kazakhstan. Residents' access to patients is centralized and monitored, allowing for the timely identification of potential risks and the prevention of violations. If incidents occur, the situation is reviewed by the supervisor, program director, and quality committee, with subsequent development of corrective actions.

If increased risks or insufficient training are identified, a resident's access to certain clinical activities may be temporarily restricted, which is reflected in a review of the privilege list. This mechanism is aimed at preventing errors and improving the safety of both residents and patients.

Residents' psychological safety and well-being are ensured through a functioning supervising system, regular feedback, and accessibility from management and academic structures. Residents have the opportunity to contact their clinical supervisor, program director, department staff, or responsible organizational officials in cases of professional overload, conflict situations, or signs of professional burnout. The organization provides consultations with a psychologist, which helps maintain the psycho-emotional state of students.

Thus, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has implemented a systemic model for ensuring the physical and psychological safety of residents, based on a clear definition of their legal status, gradual admission to clinical activities, ongoing supervising, and functioning support mechanisms. Experts have confirmed that the measures implemented comply with standards for accreditation and the principles of quality assurance in postgraduate medical education.

4.6 Postgraduate doctor remuneration

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has officially published and implements a transparent policy for the financial support of residents, regulating the payment of stipends, resident participation in medical care, and payment for postgraduate medical education examinations. This policy complies with the requirements of national legislation of the Republic of Kazakhstan and is regularly reviewed in accordance with established procedures.

Residents studying under the state educational order receive a monthly state stipend in accordance with the Rules for the Appointment and Payment of State Stipends, approved by Decree of the Government of the Republic of Kazakhstan dated February 7, 2008, No. 116 (as amended on October 10, 2022). The amount of the state stipend for resident physicians in the field of "Healthcare" from September 1, 2025, is 134,664 tenge and is paid throughout the entire period of study, regardless of the results of the interim assessment and final certification. This mechanism ensures the financial stability of residents and creates conditions for the full completion of the educational program.

Information on the resident funding procedure, payment sources, and stipend eligibility requirements is officially posted on the educational institution's information resources and is accessible to all interested parties. The payment policy is revised in accordance with changes in the regulatory framework and decisions of authorized government agencies.

As part of the educational programs, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) provides residents with the opportunity to participate in clinical activities for educational purposes, under the constant supervision of supervisors and without an employment contract. Residents' participation in clinical activities is not considered independent work activity and does not entail additional compensation, as financial support is provided through a state stipend. The scope of clinical workload, duty schedules, and permitted activities are strictly regulated by the Residency Rules and are consistent with the educational goals of the program.

Residents have the right to work in their free time, up to a maximum of their established salary, in accordance with the current labor legislation of the Republic of Kazakhstan and the internal regulations of the institution. Such cases are subject to review and should not negatively impact completion of the educational program. During the current academic year, some residents, including residents of the accredited educational programme "Adult and Pediatric Cardiac Surgery," are working part-time.

Fee for independent examinations, including state final certification and certification procedures, is covered by the republican budget or as part of the training programs. Experts have determined that the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) does not impose additional financial fees on residents, and all expenses are regulated by current legislation, including the 2022 State Educational Standard and Resolution No. 116.

In exceptional cases (e.g., for medical reasons or other valid reasons), residents may be offered an individual educational trajectory, including an adjustment to the training schedule while maintaining the established training duration. Such conditions are stipulated in internal regulations and do not affect the overall duration of completion of the educational program, which is fully adhered to.

At the time of the external review, 165 medical residents were studying at the JSC "Research Institute of Cardiology and Internal Diseases" (RICID), of which 107 were funded by a state educational grant, 47 by local government funding (including two residents in the Adult and Pediatric Cardiac Surgery educational program), and 11 were studying on a fee-paying basis. These indicators demonstrate the high demand for residency programs and a sustainable system of funding.

4.7 Postgraduate doctor health and welfare

The educational organization provides residents with systematic professional and personal support focused on maintaining physical health, psychological well-being, and preventing professional burnout, in accordance with their individual and professional needs. The experts found that the Research Institute of Cardiology and Veterinary Medicine has established and is functioning a comprehensive support system for residents based on the principles of safety, accessibility, confidentiality, and respect for the rights of students. Before beginning their training, all residents undergo a mandatory medical examination, obtain a healthcare certificate, and undergo required tests, including chest x-rays and infectious disease screening. These measures are aimed at ensuring the residents' own health and preventing risks to patients and staff at clinical sites.

The introductory briefing for residents covers biological, fire, and radiation safety, international patient safety standards, incident reporting procedures, and emergency procedures. Compliance with these requirements is a mandatory requirement for admission to clinical practice and is systematically monitored by the responsible departments.

The educational process and work schedule are organized to reduce the risk of overwork and professional burnout. The academic schedule includes a five-day work week from 8:00 AM to 5:00 PM, mandatory rest breaks, and an annual vacation of at least seven weeks (except for the final year). After night shifts, residents are exempt from high-risk procedures and the admission of new patients, which helps maintain their physical and psychological health.

Residents receive psychological support through a supervising system, regular feedback, and individual consultations with supervisors, program coordinators, and Department of Education staff. If signs of psychological stress or emotional professional burnout arise, residents can receive timely assistance and support, including through the involvement of specialized specialists. Experts have confirmed that residents are aware of available mechanisms for seeking psychological support.

JSC "Research Institute of Cardiology and Internal Diseases" (RICID) implements a zero-tolerance policy toward discrimination, violence, threats, and abuse. In the event of conflicts or violations of rights, residents have the opportunity to contact their supervisor, program coordinator, department leadership, or the Department of Education verbally or in writing. All requests are handled confidentially and within the timeframes established by internal regulations, with a mandatory analysis of the situation and the adoption of corrective measures if violations are confirmed. During interviews with residents, experts found that students are aware of the possibility of receiving legal assistance, including through contacting responsible educational institution staff and authorized structural divisions that provide legal advice on training and clinical practice.

Career and professional support for residents is provided through supervisors and program coordinators, who assist residents in matters of professional self-determination, participation in scientific and educational events, career planning, and employment. Residents are provided with consultations on developing a professional portfolio, developing competencies, and career advancement opportunities after completing their training.

Experts also confirmed that the confidentiality of residents' personal data, including information about their health, psychological well-being, and requests for support, is fully protected in accordance with internal regulations and legal requirements. Access to this information is limited and regulated.

Thus, the resident health and well-being support system implemented at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) creates a safe, humane, and supportive educational environment, promotes professional burnout prevention, and ensures the conditions for successful professional and personal development of students.

Conclusions of EEC by criteria. Comply with 19 standards: 19 - fully, 0 - partially, 0 - not compliant

Standard 5: TEACHERS AND CLINICAL SUPERVISORS

5.1 Teachers and clinical supervisor establishment

The experts determined that the educational institution has developed, approved, and implemented a personnel policy regulating the selection, hiring, workload distribution, and motivation of faculty and clinical supervisors involved in the implementation of residency programs. The personnel policy takes into account the mission and strategic goals of the educational programs, the needs of postgraduate medical education, and the practical healthcare system.

As of 2025, 52 specialists, including full-time and part-time faculty members, are involved in the implementation of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) residency programs. These include: 5 Doctors of Medical Sciences, 9 Candidates of Sciences, 4 PhDs, and 26 specialists with the highest qualification category. Educational activities are carried out in 9 residency programs, in which 165 residents are enrolled. The selection and approval of faculty is carried out annually by order of the Chairman of the Board or an authorized person upon recommendation of department heads.

Residency program faculty requirements comply with Article 51 of the Law of the Republic of Kazakhstan "On Education" and the State Educational Standard (GOSO)-2022. Individuals with specialized medical education, relevant qualifications, clinical experience, and, if necessary, an academic degree or medical category are permitted to teach. Clinical supervisors are appointed from among highly qualified practical healthcare specialists of the first and highest categories with experience in supervising and clinical work.

Experts have determined that by 2025, 92 supervisors across all specialties will perform clinical supervising functions. They will be responsible for formative assessment of residents, providing feedback, participating in the development of individualized curricula, and supporting residents in clinical and research activities. The work of supervisors is regulated by the clinical supervising Regulations of May 16, 2023, and is subject to regular internal assessment by program directors and the Department of Science and Education.

The faculty-to-resident ratio complies with regulatory requirements and ensures individualized learning and appropriate monitoring of students' academic and professional achievements. The number of residents assigned to a clinical supervisor is limited to three, consistent with the principles of patient safety, phased access to clinical practice, and international supervising practices (EPA, graded responsibility).

The teaching load of faculty and supervisors is calculated on an academic credit system, where 1 credit equals 30 academic hours. The annual workload is at least 70 credits (2,100 hours) and includes: 10% classroom work, 75% clinical supervising, and 15% independent consulting.

The time standards for calculating teaching load were approved by Order No. 506 dated September 5, 2025, and are used for staffing planning, calculating rates, and calculating hourly pay for clinical supervisors.

The experts reviewed faculty job descriptions, the clinical supervisor Regulations, the HR policy, and documents regulating the distribution of teaching and clinical workloads. It was established that the principles of professional ethics and academic integrity are enshrined in the relevant organizational regulations and communicated to the faculty. During interviews, the faculty confirmed their awareness of these principles and their obligations to comply with them.

To verify the self-assessment report data, the experts obtained faculty opinions on the HR policy and working conditions. During interviews with faculty members and program directors, issues related to engaging clinical site staff in teaching, resident enrolment strategies and tactics, information support for educational programs, and human resource management and development were discussed. The experts noted that one area for potential improvement is enhancing the pedagogical competence of part-time faculty members who lack formal training in teaching methods.

The educational institution has sufficient administrative and technical staff to support the educational process (in accordance with **ESG II, Part 1.5**). Experts met with staff from the educational and methodological center, the education department, and support divisions, confirming their engagement and the functional support of the residency programs.

The results of the faculty survey indicate a generally high level of satisfaction with working conditions: the majority of respondents are completely satisfied with the organization of the work process and working conditions, a significant portion of the faculty confirm the availability of opportunities for research and the publication of research results; the work of the HR department and the compensation system are generally positive, although there are certain aspects requiring further improvement.

As part of the residency program in adult and pediatric cardiac surgery, seven faculty members, including doctors and candidates of science, PhD specialists, and top-category physicians, work in the clinical departments of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID), provide training for residents. Their qualifications, clinical experience, and teaching experience meet regulatory requirements and ensure a high level of training for residents. Thus, the experts concluded that the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) human resources are sufficient, qualified, and meet the requirements of standard 5.1. The established system for recruiting, distributing workloads, and motivating faculty and clinical supervisors ensures the sustainable implementation of residency educational programs and promotes the development of competitive specialists for the healthcare system.

A survey of faculty members revealed that 100% were completely satisfied with the organization of work and the workplace at this educational institution, and 100% were satisfied with the work of the postgraduate education department. At this educational institution, faculty members are given the opportunity to conduct research and publish their research results—100% completely agree. When asked about support for participation in conferences (international and national), 66.67% responded that they receive sponsorship for travel, travel expenses, and registration fees, while 33.33% said they find their own sponsors. When asked about satisfaction with the organization of the educational process, 83.33% of faculty members were completely satisfied with the educational process, while 16.67% were partially satisfied. In response to the question "Are you satisfied with the salary?", 83.33% were completely satisfied, while 16.67% were partially satisfied.

5.2 Ethics and conduct of teachers and clinical supervisors

At the Research Institute of Clinical and Veterinary Medicine, the responsibilities and duties of faculty in ensuring the high-quality training of resident physicians are defined and regulated by the Institute's Human Resources Policy, approved by the Chairman of the Board on March 2, 2020, as well as by the provisions of the Academic Policy and local regulations.

The responsibilities of clinical supervisors are regulated by the Regulation on clinical supervising, approved by order of the Chairman of the Board on May 16, 2023, which defines their functions in terms of clinical education, formative assessment, providing feedback, supporting residents' individual educational and research plans, and adhering to patient safety requirements and ethical standards.

The principles of professional ethics, academic integrity, and conduct of faculty and clinical supervisors are enshrined in the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) Code of Business Ethics, approved by the Board of Directors on April 19, 2019 (Minutes No. 2), and in the Institute's Academic Policy. These documents establish standards for respectful interaction,

prevention of conflicts of interest, maintaining the confidentiality of personal and medical data, and integrity in educational and research activities.

During interviews and discussions with faculty and clinical supervisors, experts determined that employees are aware of current ethical requirements, principles of academic integrity, and the mechanisms for enforcing them. Official versions of the regulatory documents are posted on the official website of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) in the section dedicated to corporate governance and regulatory documentation and are freely accessible to employees and students.

Compliance with ethical standards is monitored by educational programme directors responsible for the training of doctors of education (DPCE), as well as clinical supervisors. If violations are identified, the information is recorded and reviewed in accordance with established procedures by the relevant committees, ensuring transparency, accountability, and preventative oversight.

The Institute has a local Bioethics Commission, whose activities are aimed at reviewing ethical issues in scientific and educational activities, including clinical training. Information about the commission is available on the official website of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID). An Ombudsman Office is also in place to handle inquiries and complaints, provide advice to staff and students, and monitor compliance with business and academic ethics standards.

Thus, the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) has created an institutional environment that ensures adherence to the principles of ethics, academic integrity, and professional conduct of faculty and clinical supervisors, which complies with the requirements of ESG II Part 1.5 and ECAQA standards.

JSC "Research Institute of Cardiology and Internal Diseases" (RICID) has developed and implemented a system for monitoring and continuously improving the performance of faculty and clinical supervisors, which complies with the **requirements of ESG II Part 1.5**. The system is aimed at improving the quality of the educational process, professional development of staff, and employee satisfaction with working conditions.

Faculty performance is monitored in accordance with current local regulations, including provisions on certification, performance assessment, and internal quality control. Faculty certification is conducted in accordance with the requirements of the legislation of the Republic of Kazakhstan and the internal regulations of the Institute.

One of the monitoring tools is a regular survey of faculty members, conducted by the relevant structural division (the department/service for human resources and educational personnel management). The survey results are used to analyze satisfaction with working conditions, workflow organization, opportunities for professional growth, and the effectiveness of HR policies. According to the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) survey, provided to experts and conducted in 2022, the majority of faculty members expressed satisfaction with their working conditions, workplace organization, opportunities to engage in research and publish research results, as well as the work of the Institute's HR department.

The motivation and incentive system for faculty and clinical supervisors includes material and non-material incentives and is implemented in accordance with the Labor Code of the Republic of Kazakhstan, labor agreements, and collective bargaining agreements. The Institute ensures timely payment of wages, incentive bonuses for high performance, and rewards for significant achievements in scientific, educational, and clinical activities.

To enhance their professional competence, faculty and supervisors regularly attend advanced training courses funded by the Institute, participate in training programs, research internships, and professional events, including international events. This contributes to the development of scientific and pedagogical potential, the implementation of modern educational and clinical practices, and the strengthening of the Institute's talent pool.

Additionally, incentive measures are implemented, including the presentation of letters of gratitude, the presentation of certificates of honor, the awarding of valuable gifts, and the nomination

of employees for departmental awards from the Ministry of Health and the Ministry of Science and Higher Education of the Republic of Kazakhstan. The principles of incentives are based on legality, transparency, and fairness and are applied exclusively for personal achievements and contributions to the development of the Institute.

Overall, the EEC experts concluded that the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has a systematic, transparent, and effective system for monitoring, motivating, and improving the performance of faculty and clinical supervisors, ensuring adherence to ethical standards, sustainable professional development of staff, and the high quality of postgraduate medical education programs.

5.3 Continuing professional development of teachers and clinical supervisory staff

During a meeting with the Head of Human Resources and through interviews with faculty and clinical supervisors, external experts obtained a consolidated opinion on the approaches to developing teaching and supervising competencies at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID). The experts found that the Institute implements a systematic policy of continuous professional development aimed at increasing faculty motivation to work with residents, developing supervising, implementing modern educational technologies, fostering a research culture, and developing pedagogical and digital competencies.

The experts confirmed that faculty and residents have sufficient and balanced time for teaching, supervising, and learning. Faculty work schedules are regulated by internal regulations and correspond to a five-day workweek. Working hours are set from 8:00 AM to 5:00 PM. Seminars typically last 2-3 academic hours. Clinical reviews, bedside rounds, and consultations are conducted regularly as part of clinical activities. Duties are assigned according to approved schedules and comply with occupational health and safety requirements and professional burnout prevention.

Experts received information on the annual faculty professional development program. It was determined that a significant portion of the faculty involved in residency educational programs completed training in the reporting year, including faculty from the accredited educational programme in the relevant specialty. Professional development is funded by the educational institution. Experts verified certificates in the areas of medical education pedagogy, clinical supervising, objective assessment methodology, simulation training, academic integrity, and digital educational technologies.

Faculty salaries are comprised of a base salary, incentive payments, bonuses for research and teaching activity, and other forms of financial incentives. Funding for clinical supervisors is provided in accordance with the approved clinical supervising Regulations, including hourly pay and incentive payments.

Experts have found that faculty actively initiate research topics for residents, encouraging them to independently work with scientific literature, clinical documentation, and participate in research projects. This practice fosters residents' research-based thinking and evidence-based medicine skills.

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) personnel policy and approaches to engaging **clinical supervisors (ESG II Part 1.5)** are regularly reviewed to reflect the changing needs of postgraduate medical education. The most recent review was conducted in the reporting year and included updating requirements for teaching competencies, expanding professional development programs, and clarifying mechanisms for motivating and evaluating the performance of faculty and supervisors.

A faculty survey conducted by the ECAQA revealed that the majority of respondents acknowledged the availability of opportunities for career growth and professional development, with some reporting partial satisfaction with these opportunities. Analysis of data on professional development shows that a significant proportion of faculty members had completed training within the past year or reporting period. The organization also implements social support programs for faculty members, of which most respondents were aware.

Experts found that the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has implemented and documented a performance assessment system for faculty and clinical supervisors based on the principles of feedback, student-centeredness, and continuous improvement of educational quality. Resident physicians' opinions, obtained through regular surveys, play a significant role in assessing teaching quality. Faculty members who receive negative feedback are placed under management oversight.

An additional tool for assessing teaching performance is the process of selecting elective courses, which allows for an indirect assessment of the relevance, relevance, and effectiveness of teaching. The experts analyzed the results of a resident survey, in which 100% of students participated. The results demonstrate a consistently high level of satisfaction with the quality of training, supervising, and organization of the educational process. All resident suggestions are operational in nature and aimed at targeted optimization of the educational process.

Given that this is only the first year of training for cardiac surgery residents, no employer survey was conducted.

JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has a policy of recognizing and rewarding faculty and clinical supervisors based on a comprehensive assessment of their teaching, clinical, and research activities. The system includes both material incentives (bonuses, bonuses, travel) and non-material support measures (academic recognition, participation in grant and international projects, publication support).

The policy for recruiting and developing faculty and supervisors is regularly reviewed and adapted in accordance with the changing requirements of postgraduate medical education, modern clinical and educational standards, and the results of internal and external monitoring. The EEC experts concluded that the continuous professional development system implemented at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) is sustainable, transparent, and meets the requirements of standard 5.3 and ESG II Part 1.5.

In response to the ECAQA survey question, *"Are there opportunities for career growth and competency development for faculty?"*, 100% of respondents responded affirmatively; 33.33% reported having completed professional development programs during the current year, and 66.67% reported having completed such programs within 1-5 years. To the question, *"Does the organization implement social support programs for faculty?"* 50% of respondents responded affirmatively, while 50% were unaware of such programs. The experts recommend actively informing management about the aforementioned program.

The EEC experts found that the staffing of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) residency programs generally complies with **ESG standards** and current legislation, and that the teaching and clinical staff possess high clinical and scientific qualifications. However, some external part-time faculty and clinical supervisors actively involved in resident training are not fully proficient in modern medical education methods. Therefore, the EEC recommends introducing a mandatory introductory module for external part-time faculty and clinical supervisors, covering the fundamentals of pedagogy, methods for objectively assessing clinical skills, and supervising principles. This will help standardize pedagogical approaches and improve the quality of clinical education.

The experts also recommend strengthening the continuous professional development system for faculty and part-time faculty through regular pedagogical training and educational programs aimed at developing educational, assessment, and supervising competencies. Additionally, the EEC considers it advisable to more actively develop academic mobility for faculty and clinical supervisors, including international internships and participation in foreign educational and research programs. This will facilitate the implementation of best international practices and further improve the quality of postgraduate medical education at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID).

Conclusions of EEC by criteria. Comply with 8 standards: 5 - fully, 3 - partially, 0 - not compliant

Standard	Standard Compliance	Recommendations for Improvement
5.1.1	Partially Compliant	To ensure the implementation of advanced training for supervisors and external part-time employees through structured pedagogical training with mandatory documentation of content, practical components (clinical skills assessment, Formative Assessment, supervising), learning outcomes, and subsequent application in the residency educational process.
5.3.2	Partially Compliant	To ensure mandatory pedagogical training for faculty and external part-time employees of residency programs using the approved module, documenting acquired competencies and confirming their application in the educational process.
5.3.4	Partially Compliant	To introduce a regulated system of academic mobility for residents and faculty, including international internships, with established selection criteria, partner organizations, and mechanisms for crediting learning outcomes.

Standard 6: EDUCATIONAL RESOURCES

6.1 Clinical facilities for learning and research

Resident training in the educational programme 7R01109 "Adult and Pediatric Cardiac Surgery" is provided at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), as well as at the clinical sites of partner medical organizations that have the appropriate licenses and accreditation to practice medicine. The clinical sites include specialized cardiac surgery, cardiology, anesthesiology and intensive care, and diagnostic units, ensuring a sufficient flow of adult and pediatric patients to develop residents' clinical and surgical competencies. The clinical units' bed capacity allows for all stages of cardiac surgery care, including preoperative preparation, surgical treatment, and postoperative patient care.

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) infrastructure includes classrooms and clinical rooms, conference rooms for clinical discussions, consultations, seminars, and journal clubs, a simulation room, a 30-workstation computer lab, a testing center, and a scientific and medical library. All classrooms and clinical spaces are equipped with multimedia equipment, modern visualization tools, and the teaching and methodological resources necessary for implementing the cardiac surgery residency educational program.

Before beginning each course of the educational program, residents receive syllabi that clearly define the learning objectives, expected outcomes, and a list of the professional competencies and practical skills to be developed, including surgical procedures, ensuring a systematic and transparent educational process.

The educational organization provides residents with opportunities for practical and theoretical training through direct participation in the clinical activities of specialized departments, patient management, participation in surgical interventions according to privilege sheets, clinical reviews, pathology conferences, and the development of practical skills in a simulation classroom.

Access to the latest professional literature and international sources is provided through the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) scientific and medical library, an electronic library system, and subscriptions to leading international and national information resources, including Scopus, Web of Science, ScienceDirect, Wiley, Cochrane Library, MedBaseGeotar, Student Consultant, eLIBRARY, and other specialized databases used in clinical and scientific activities in cardiac surgery. Access to simulation equipment is provided through the JSC 'Research Institute of

Cardiology and Internal Diseases" (RICID) simulation room, which is equipped with modern surgical simulators, dummies, and phantoms for practicing vascular suturing skills and emergency procedures. In 2025, a significant upgrade of the simulation equipment was completed, which positively impacted the quality of practical training for residents in all specialties and allowed for enhanced preclinical skill development before admission to patients.

At the same time, given the high technological advancement of the Adult and Pediatric Cardiac Surgery specialty, experts recommend further expanding the training opportunities at the simulation center by expanding the range of highly realistic simulators, introducing teamwork scenarios (anesthesiology, perfusion, resuscitation), and systematizing simulation training by resident skill level. Implementation of this recommendation will enhance patient safety, improve residents' preparedness to perform complex interventions, and fully comply with best international practices in postgraduate medical education.

A safe learning environment in operating rooms, laboratories, and functional and instrumental diagnostic units (**ESG II Part 1.6**) is ensured by mandatory introductory and periodic training for residents on safety, labor protection, sanitary, epidemiological, and fire safety requirements, with recording of these training sessions in appropriate logs. Experts reviewed the safety regulations and training logs posted in the Institute's departments. Residents interviewed confirmed that they are aware of these requirements and adhere to them during their training.

As part of the cardiac surgery educational programme at the JSC 'Research Institute of Cardiology and Internal Diseases" (RICID), research is conducted in priority areas, including the surgical treatment of congenital and acquired heart defects, coronary heart disease, aortic and major vascular pathologies, as well as the improvement of extracorporeal circulation methods and postoperative rehabilitation. Over the past five years, significant results have been achieved, including publications in peer-reviewed journals, participation in international and national scientific forums, and the implementation of research findings in clinical practice.

Senior residents are involved in the research and its individual stages, participating in the collection of clinical material, data analysis, the preparation of scientific reports, publications, and clinical observations. The results of research activities are included in the resident's portfolio, the structure of which is regulated by the internal regulations of the JSC 'Research Institute of Cardiology and Internal Diseases" (RICID).

The educational programme includes disciplines and thematic sections devoted to medical research methods, the fundamentals of evidence-based medicine, and biostatistics, with a set curriculum volume sufficient to develop the research competencies of cardiac surgery residents. When conducting scientific and practical research, residents are provided with access to instrumental and laboratory equipment from specialized clinical and diagnostic departments. The clinical facilities, including clinical, simulation, and library equipment, is regularly updated based on monitoring of the educational program's availability and feedback from residents and faculty. Over the past five years, computer equipment, simulation equipment, and electronic library resources have been updated, ensuring overall compliance with the requirements of **ESG II Part 1.6** and modern standards for the training of cardiac surgeons.

An interview with faculty members of the Department of Cardiology and Cardiac Surgery, headed by A.T. Musagalieva and G.B. Sultanov, revealed that conditions have been created for implementing the educational programme and developing the professional competencies of cardiac surgery residents. At the same time, the experts noted both positive practices and specific management and organizational aspects that vary depending on the specific clinical site. Specifically, differences were identified in residents' access to high-tech equipment, availability of a sufficient number of specialized patients, and the distribution of time between medical record keeping, independent work, and educational activities. These differences are not systemic, but they require further coordination and standardization of approaches to organizing the educational process across all clinical sites.

6.2 Postgraduate medical education based on clinical learning

The experts assessed residents' medical record management, including case histories, prescription sheets, discharge summaries, individual procedure logs, resident portfolios, and their use of the DamuMed medical information system. It was determined that documentation is completed in accordance with clinical protocols, JCI principles, and the internal regulations of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID), with a clear delineation of residents' roles and responsibilities.

A review of resources showed that they are consistent with the goals and objectives of educational activities. The experts visited the clinical sites of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID), including the Cardiac Surgery Department with its operating suite and artificial circulation laboratory, the Anesthesiology, Resuscitation, and Intensive Care Unit, the Cardiology Department, the Cardiac Rhythm and Conduction Disorders Department, the Endovascular Surgery Unit, the Consultative and Diagnostic Center, the Day Hospital, and the Admissions Department, with a total of over 250 beds. The educational organization's staff ensures collegial, ethical, and professional relationships with medical staff and clinical site management, which contributes to the achievement of the stated training outcomes for residents. A sufficient number of specialized patients, including those with ischemic heart disease, valvular defects, congenital and acquired heart defects, and rhythm and conduction disorders, is provided. This, combined with the availability of modern equipment, ensures the accessibility of clinical training and adherence to the principles of medical ethics and deontology.

During visits to the departments of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) (Cardiac Surgery Department, Intensive Care Unit, Endovascular Surgery Unit, and Clinical Diagnostic Center), experts assessed resources, their alignment with educational programs, accessibility for faculty and residents, and the relevance and modernity of equipment in the context of the needs of trainees and practical healthcare.

To validate the self-assessment report and obtain evidence of the quality of program implementation, interviews were conducted with residents. The experts asked questions about satisfaction with training, sufficient time for patient supervision, work with medical documentation, teaching methods and faculty qualifications, social and moral support, participation in journal clubs, and access to international databases of professional literature. Overall, residents were satisfied with the training and assessment methods and consciously chose the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) for their residency, noting the high level of resources, the organization's reputation, and its international connections. Residents also expressed a desire for greater independence in patient care and more active participation in international educational events.

The organization operates a simulation center equipped with modern mannequins, phantoms, and simulators for practicing basic and specialized clinical skills. Residents in the Adult and Pediatric Cardiac Surgery program practice cardiopulmonary resuscitation, intubation, catheterization, critical care, ECG interpretation, and teamwork skills. Providing emergency care to patients with life-threatening conditions is also included in the curriculum. Thus, simulation training is an integrated and mandatory part of residents' clinical training.

During interviews with residents, *EEC* experts asked basic questions on the anatomical, physiological, and pathophysiological aspects of the cardiovascular system as part of their clinical training quality assessment. These questions relate to the mandatory entry and ongoing theoretical training in the specialty. The interview results revealed that both residents experienced difficulty answering the above questions regarding the fundamental principles of cardiovascular function and the clinical and pathophysiological mechanisms of the most common cardiovascular conditions. This indicates an insufficient level of preliminary (basic) theoretical knowledge at the time of the interview. The experts note that the identified difficulties are not systemic but fragmented in nature and do not diminish the overall potential of the educational program. However, they point to the need for stronger monitoring of entry-level knowledge, clearer continuity between theoretical training and clinical education, and targeted repetition and reinforcement of basic disciplinary foundations of the cardiovascular system in the early stages of residency. The *EEC* considers it appropriate to recommend

that the educational organization consider implementing more thorough diagnostic entrance testing, structured modules to update fundamental knowledge, and additional forms of formative assessment aimed at promptly identifying and addressing gaps in residents' basic theoretical knowledge. This will contribute to improving the effectiveness of clinical training and achieving the stated educational programme outcomes. The experts also reviewed residents' portfolios, assessment checklists, survey results, and other supporting documents.

To develop teamwork experience among residents, the educational organization conducts clinical reviews, morning conferences, pathology conferences, journal club meetings, and interdisciplinary consultations. Interprofessional interaction is also achieved through joint patient care and participation in surgical interventions. Collegiality among residents is evident in the distribution of roles, mutual consultation, and supervising. Residents conduct health education activities for patients and training sessions for interns and junior colleagues.

According to the survey, residents noted free access to patients at clinical sites and the availability of conditions for improving practical skills; 100% of faculty fully agreed with this statement.

Regular updates of equipment at clinical sites and educational resources are carried out taking into account the changing needs of the residency program, the planned and current student population, and maintaining a 3:1 resident-to-faculty ratio. The clinical supervisor profile is determined by the relevant department, and the education department evaluates their compliance with program goals, educational level, and proficiency in teaching methods. During the reporting period, clinical supervisors were trained in seminars on pedagogy, clinical skills assessment, and supervising. Supervisors were provided with methodological recommendations, checklists, syllabi, and privilege sheets.

Educational expertise includes analysis of the quality of clinical teaching, assessment of teaching methods, and monitoring of learning outcomes, presented in the form of analytical and research materials. The educational organization participates in national and international educational projects, which have resulted in the introduction of simulation-based learning elements, modern assessment methods, and interdisciplinary training formats. The DPCE conducts annual monitoring of the quality of educational programs, incorporating the results into analytical reports and development plans. Experts noted that further development of sociological surveys could strengthen the educational quality assessment system. Overall, the analysis and feedback mechanisms allow for well-founded conclusions to be drawn about the quality and sustainability of innovative changes in the postgraduate medical education system at the JSC "Research Institute of Cardiology and Internal Diseases" (RICID).

6.3 Training postgraduate doctors at alternative clinical settings

The Academic Policy of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) provides for the possibility of training residents at alternative clinical sites within the country and abroad in cases where the in-house clinical departments do not fully cover all thematic sections of the educational program. However, the primary training of residents in the specialty 7R01109 "Adult and Pediatric Cardiac Surgery" is conducted at the JSC "Research Institute of Cardiology and Internal Diseases" (RICID), which has specialized cardiac surgery, cardiology, anesthesiology and resuscitation, endovascular, and diagnostic departments with a combined bed capacity sufficient to implement all stages of clinical training.

Residents study curricular disciplines such as pediatric cardiac surgery, congenital heart defects, and related areas of pediatric and neonatal care at alternative clinical sites, including the Scientific Center for Pediatrics and Pediatric Surgery, Children's City Clinical Hospital No. 2, and the Center for Perinatology and Pediatric Cardiac Surgery. Scientific publications are prepared under the supervision of RICID faculty and generally do not require the involvement of additional clinical sites. Residents also have the opportunity to participate in academic mobility within the country (for example, at the A.N. Syzganov National Scientific Center of Surgery) and through memorandums of understanding, including with the University Medical Center and international cardiology and cardiac surgery centers.

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has an approved document for the transfer and mutual recognition of learning outcomes between educational institutions—the Regulation on the Transfer of Credits and Learning Outcomes within the Credit System (ECTS), which complies with the requirements of **ESG II Part 1.2**. This practice is used when residents complete individual modules and clinical rotations at external sites.

Experts have determined that the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has concluded more than 20 cooperation agreements and memoranda with clinical sites, universities, and research centers, including the A.N. Syzganov National Scientific Center of Surgery, Astana Medical University, University Medical Center, as well as international institutions in Japan, Turkey, Azerbaijan, and the Russian Federation. This collaboration allows for the introduction of modern teaching methods and technologies into residency programs, including training in highly specialized clinical settings, the use of international clinical protocols, elements of simulation and team-based learning, and participation in joint scientific and educational projects.

Research Institute of Cardiology and Cardiology faculty actively participate in national and international educational and scientific-practical events. During the reporting period, more than 30 faculty members participated in international congresses, conferences, and internships. The acquired knowledge and experience are integrated into the residency curriculum. The "Adult and Pediatric Cardiac Surgery" educational programme plans to regularly hold scientific-practical conferences and master classes, as well as clinical discussions with national and international experts. Over the past five years, faculty members have completed training and internships abroad in modern cardiac surgery, endovascular technologies, and medical care quality management.

Thus, the EEC concludes that the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) policies and practices for training residents at alternative clinical sites are systematic, documented, and meet the requirements of standard 6.3, ensuring academic mobility, continuity of learning, and the achievement of the stated educational outcomes of the educational programme in specialty 7R01109 "Adult and Pediatric Cardiac Surgery."

6.4 Information sources, resources and use

The EEC experts assessed the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) residents' and faculty's access to essential web resources, including the educational institution's official website, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) educational portal, the electronic library system, as well as access to electronic media and professional medical portals (PubMed, Medscape, UpToDate, and professional association websites). Residents confirmed that they have access to online resources, electronic textbooks, clinical guidelines, and scientific publications, including when preparing for classes, clinical reviews, and independent work.

Experts visited the Scientific and Medical Library of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), which provides residents and staff with free access to printed and electronic educational and scientific resources. In total, there are 2,692 printed copies of literature on the accredited specialty, and over 5,000 electronic publications and full-text resources. The main monographs in the specialty "Adult and Pediatric Cardiac Surgery" are modern guidelines on cardiac surgery, cardiovascular surgery, and intensive care, including international clinical guidelines and fundamental textbooks, which are available in the library collection and are accessible to students.

The educational organization provides access to international databases and platforms: Web of Science (Thomson Reuters), Scopus, Springer Link, Wiley, Cochrane Library, ScienceDirect, PubMed/MEDLINE, eLIBRARY, and other specialized resources. During interviews, residents demonstrated awareness of these resources and confirmed their use in preparing research papers, clinical cases, and presentations.

The information and communication technologies at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) are represented by a developed IT infrastructure, including personal computers with internet and intranet access, server capacity, email, the DamuMed medical information system with a PACS module, and integration with state healthcare information systems. The

educational programme utilizes technologies such as electronic educational resources, presentation and multimedia materials, video lectures, online access to databases, clinical information systems, and elements of distance learning.

During independent study, residents utilize electronic libraries, international databases, clinical guidelines, digital educational materials, and online resources. Access to patient data and healthcare information systems is provided through the DamuMed MIS, allowing residents to participate in patient management, diagnostic data analysis, and medical documentation under the supervision of faculty and clinical supervisors. On average, a resident supervises 5-10 patients per day, including completing medical documentation electronically.

Some elements of distance learning methods, such as online consultations, video conferencing, clinical case studies, and the use of instant messaging apps for organizational and academic communication, are used in training residents on clinical case studies, research projects, and theoretical modules. The principles of medical ethics and confidentiality, as defined by the internal regulations of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), including provisions on the use of information resources and the protection of personal data, are observed.

Thus, the educational organization provides residents, faculty, and clinical supervisors with sufficient and equal access to information, as well as the opportunity to use innovative information and communication technologies, which meets the requirements of **ESG II Part 1.8**.

Over the past 2-3 years, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has implemented and is actively developing the following information and communication technologies: expanded access to international scientific databases, modernization of the server infrastructure, integration of medical information systems, updating of electronic library resources, and expansion of digital educational materials. Electronic educational materials, international databases, clinical guidelines, and online resources are used to organize independent learning for residents. Corporate email and professional messengers are used to ensure seamless information exchange between residents and faculty. Access to patient data and healthcare information systems is organized through the DamuMed MIS and integrated state information systems, which complies with the requirements of ESG II Part 1.6.

The *EEC* experts reviewed the documents regulating these processes, including regulations on the use of information and communication technologies, rules for accessing library and electronic resources, instructions for working with medical information systems, the information security and ethics policy, and the materials of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) self-assessment report.

Overall, the *EEC* concludes that, according to standard 6.4, the educational organization meets the established requirements, providing a stable information environment for the implementation of the residency educational programme in specialty 07R01109 "Adult and Pediatric Cardiac Surgery," with potential for further digital integration and systematic monitoring of the quality of educational resources.

Conclusions of EEC by criteria. Comply with 15 standards: 14 - fully, 1 - partially, 0 - not compliant.

Standard	Standard Compliance	Recommendations for Improvement
6.2.4	Partially Compliant	To expand the use of the existing simulation center in the 7R01109 "Adult and Pediatric Cardiac Surgery" residency program by implementing specialized cardiac surgery simulation modules with mandatory recording of practical skills acquisition results.

Standard 7: QUALITY ASSURANCE AND IMPROVEMENT IN POSTGRADUATE

TRAINING

7.1 Quality assurance system

JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has implemented and is operating a quality assurance system, documented in the " JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) Academic Policy" (approved in 2024), which covers postgraduate medical education, administration of educational processes, monitoring of residency program implementation results, and assessing the achievement of the organization's mission. The quality system is based on the principles of ISO 9001:2015 and is implemented through regular internal and external audits, performance analysis, and continuous improvement of educational activities.

The decision-making and change management process related to residency programs is governed by the Academic Policy and the Regulations on the Academic Council of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID). These documents were developed by the Department of Postgraduate and Continuing Education (DPCE) and approved by the Chairman of the Board of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) (**ESG II Part 1.1**). Quality management is implemented through a clearly defined system of responsibility between the DPCE, the Academic Council, departments, and heads of educational programs.

The experts evaluated the program for monitoring the processes and results of the educational program, which includes the stages of educational programme review (the experts were familiar with the review by specialized specialists from clinical sites and the Academic Council, 2024), program discussions at meetings of the Educational Programs Committee (EPC) of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) (minutes of meeting No. 7 dated March 10, 2025), and systematic feedback on various elements of the residency program through surveys of residents, faculty, and employers.

A survey of residents in other specialties is conducted annually and addresses topics such as understanding of the educational programme goals, the quality of clinical training, the effectiveness of supervising, learning conditions, and overall satisfaction with the program. The results of a resident survey conducted by the DPCE in 2025 revealed a high level of satisfaction among students with the quality of the educational process, clinical practice, and supervisor accessibility, with specific suggestions for optimizing teaching loads and reducing administrative barriers.

The DPCE Department also conducts a faculty survey, and the Career Center is conducting an employer survey. Based on the analysis of employer feedback, changes were made aimed at strengthening the practice-oriented component, developing independent clinical thinking skills, and developing continuous professional development competencies.

A questionnaire was developed for the faculty survey, consisting of over 20 questions, including those on the quality of the educational program, resource availability, interaction with residents, and the effectiveness of teaching methods. The results of the faculty survey conducted by the DPCE in 2025 showed a generally positive assessment of the program's implementation conditions, while citing the need for further development of simulation training and optimization of teaching load distribution (**ESG II Part 1.9**).

The selection and alignment of faculty and teaching methods is also determined by analyzing resident feedback. For example, survey results from 43 residents in other specialties in 2024 and 2025 showed that the program's faculty are characterized by a high level of clinical competence, accessibility, and engagement in the educational process.

The program's assessment takes into account the program's learning goals and objectives, as well as learning outcomes (through formative and summative assessment, as well as independent examination). The program's implementation is assessed by analyzing resident and faculty feedback, as well as graduate achievements.

Resident admissions approaches are assessed by analyzing competitive indicators, entrance examination results, and applicants' compliance with program requirements.

Resident knowledge and skills assessment methods are assessed through a comprehensive system of ongoing monitoring, final assessment, and independent examination, demonstrating the objectivity and comparability of learning outcomes.

The adequacy and quality of educational resources are assessed through internal monitoring and audits, demonstrating that resource provision is generally consistent with the program's goals and objectives, with potential for further development of the simulation component.

The assessment of the quality of the residency educational programs revealed that, along with achievements (high level of clinical training, employer confidence, and sustained demand for graduates), there are a number of challenges and shortcomings, including uneven workload across clinical sites and the need to strengthen basic theoretical training early in the program.

Feedback from clinical supervisors includes an assessment of residents' readiness for independent work, which is conducted by the DPCE jointly with the departments.

Thus, stakeholders are involved in the educational programme monitoring and assessment activities (**ESG II Part 1.9**), including residents, faculty, clinical supervisors, employers, the CEP, the Academic Council established in September 2025, and authorized structural units.

Residents and graduates are communicated through analytical reports and presentations, as well as discussions at meetings of the Academic Council and the Board of Directors of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID). This ensures that stakeholders, such as directors of educational programs, clinical sites, and those responsible for resident admissions, are kept informed of the monitoring results in a timely manner.

Interviews with three employers were conducted online and included questions about knowledge of the institute's mission, participation in the development of strategic documents, satisfaction with the level of resident training, graduates' readiness for independent work, and their employment rate. Employers highly valued graduates' qualities such as professional responsibility, medical judgment, discipline, and adaptability, while noting the need for further development of self-study and clinical analysis skills. The graduate employment rate over five years ranged from 85% to 95%.

Residents' and graduates' performance is considered key indicators of the quality of educational programs. The final assessment results for residents in other specialties in 2024–2025 demonstrate stable academic performance and positive dynamics in the development of professional competencies. An independent assessment also confirmed that the level of training meets residency program requirements.

Since the entire resident training and monitoring process is concentrated within the Department of Postgraduate and Continuing Education, the results of the clinical practice assessments are promptly communicated to responsible officials. The Department of Postgraduate and Continuing Education is responsible for the residency programs. To improve the educational process, measures have been taken over the past two to three years to update teaching and methodological materials, expand simulation training, and develop digital quality monitoring tools.

The educational organization is initiating procedures for regular review and updating of the organizational structure through the implementation of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) Development Plan for 2022–2026. The current organizational structure of the postgraduate education sector was approved in 2022. New features include a strengthened role for the Academic Council and a systematization of the functions of the Department of Postgraduate and Continuing Education.

The resident training process, program structure and content, competencies, and assessment methods are subject to annual analysis based on monitoring results, department and Academic Council meeting minutes. The experts reviewed the department and Academic Council meeting minutes for 2024–2025, which confirm the systematic nature of program updates.

The resident portfolio form was approved at the meeting of the CEP (Minutes No. 7 dated March 10, 2025). The experts reviewed the resident portfolios in the specialty of "Adult and Pediatric Cardiac Surgery."

The assessment of educational resources and the alignment of clinical sites with program goals is carried out by the DPCE and documented in internal monitoring reports.

The process of updating the educational programme is based on prospective studies, an analysis of healthcare system needs, and feedback from residents, faculty, and employers (**ESG II Part 1.10**) Over the past 2-3 years, elements of enhanced simulation training, updated elective courses, and digital learning support tools have been introduced into the residency programs in other specialties. Benchmarking is conducted with leading national and international medical organizations, the results of which are used for further program improvement.

Overall, the EEC concludes that, according to standard 7.1, the quality assurance system for the educational programme 07R01109 "Adult and Pediatric Cardiac Surgery" is functioning effectively, **complies with ESG requirements**, and has sustainable potential for further development and improvement.

7.2 Patient safety

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has implemented and is operating a quality assurance system, including resident error analysis and patient safety risk management. This system is reflected in the documents "JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) Academic Policy," "Internal Policy for Quality and Safety of Medical Care," and in the regulations of the Department of Postgraduate and Continuing Education. This system is integrated into the residency educational process and complies with the principles of the international WFME and JCI standards, as confirmed by self-assessment materials and the results of an external review.

Resident error analysis is the responsibility of clinical supervisors, heads of specialized departments, and heads of educational programs and additional development programs, with methodological support from the Academic Council of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID). Errors and incidents are addressed through clinical reviews, consultations, department meetings, and internal committees on the quality of medical care, ensuring a systematic and educational, rather than punitive, analysis. This approach fosters a culture of open discussion of clinical errors among residents, aimed at preventing recurrence and improving patient safety.

Patient safety risks are identified at the residency program and clinical site management level and include regular monitoring of residents' clinical activities, incident analysis, review of privilege sheets, assessment of resident independence levels relative to their professional competencies, and mandatory resident participation in quality and safety control activities. Experts noted that risk management is integrated into everyday clinical practice and the educational environment.

Before being admitted to clinical practice, all residents undergo mandatory introductory training on patient safety, infection control, emergency procedures, and ethical compliance. This training is documented and signed by the resident and the designated person. The experts reviewed the training logs and resident personal files, confirming the systematic nature of this practice.

During clinical rotations, residents work in interdisciplinary teams and act as the primary contact for assigned patients under the constant supervision of a supervisor. This format ensures continuous monitoring, a personalized approach to treatment, and the timely identification of potential risks. Residents are not allowed to independently perform high-risk procedures without a supervisor, especially during periods of increased clinical workload or after overnight shifts, which the experts consider a strength of the safety system.

Responsibility for patient safety and the quality of clinical practice is shared between residents and clinical supervisors. Supervisors oversee medical documentation, the accuracy of diagnostic and treatment decisions, participate in clinical reviews and consultations, and bear joint responsibility for the actions of residents. This principle of joint responsibility is enshrined in the Academic Policy of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) and contributes to the development of professional maturity and a conscious attitude toward safety issues among residents.

The experts also noted the positive practice of holding regular educational seminars aimed at developing a patient-centered approach, clinical reasoning, and a safety culture. During these events, residents analyze real clinical situations, use data from international databases, and discuss ways to improve the quality of medical care, thereby integrating safety principles into clinical practice.

Overall, the EEC concludes that, according to standard 7.2 "Patient Safety," the educational programme for specialty 07R01109 "Adult and Pediatric Cardiac Surgery" **complies with ESG requirements** and international approaches to ensuring patient safety in postgraduate medical education. The JSC "Research Institute of Cardiology and Internal Diseases" (RICID) has a systemic, multi-level model for managing risks and clinical errors among residents, based on a clear delineation of responsibilities, the use of privilege sheets, mandatory supervision, and the development of a culture of continuous learning.

At the same time, the EEC notes the potential for further improvement of the system, including: formalization and visualization of algorithms for analyzing clinical incidents involving residents; The development of standardized patient safety indicators related to the educational process; and the expansion of the use of simulation training to practice clinical error scenarios and crisis situations.

The implementation of these areas will strengthen the integration of patient safety principles into the educational programme and further improve the quality of training for cardiac surgery residents.

The experts of the *EEC* for Standard 7 noted the advisability of further strengthening the educational programme monitoring mechanism, primarily through systematization and regular collection of feedback from faculty and clinical supervisors. Currently, the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) has basic tools for internal quality assessment; however, their development toward a more structured, cyclical, and analytically oriented approach will improve the manageability of the educational process and the timeliness of management decisions.

In this regard, it is recommended to implement regular surveys and expert discussions involving faculty and part-time staff. These surveys aim to assess the content of the educational program, the distribution of teaching loads, the effectiveness of clinical rotations, the compliance of residents' training with clinical practice requirements, and the identification of risks affecting patient safety and educational quality. The results of such feedback should be integrated into the work of the Academic Council and program directors, with subsequent documentation of decisions made and informing faculty about the improvements implemented. This will contribute to the development of a quality culture, increased faculty engagement, and sustainable improvement of the educational programme in accordance with ESG requirements.

Conclusions of EEC by criteria. Comply with 10 standards: 9 - fully, 1 - partially, 0 - not compliant

Standard	Standard Compliance	Recommendations for Improvement
7.1.4	Partially Compliant	To introduce regulated monitoring of educational programme implementation with mandatory regular collection of structured faculty feedback, review of results by the Academic Council, and documented use in program adjustments.

Standard 8: GOVERNANCE AND ADMINISTRATION

8.1 Governance

The EEC experts reviewed the management structure of postgraduate medical education at the JSC "Research Institute of Cardiology and Internal Diseases" (RICID), which includes the Institute's Board of Directors, the Academic Council, the Department of Postgraduate and Continuing Education (DPCE), residency program directors, clinical departments, and the supervising system. This structure is duly approved by the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) internal regulations and is consistent with the mission, strategic goals, and

objectives of the residency programs. Responsibility for organizing and coordinating supervising is assigned to the DPCE, in close collaboration with program directors and clinical supervisors. The management of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), together with the Department of Postgraduate Education and specialized structural divisions, is responsible for selecting clinical training sites, ensuring their compliance with educational objectives, and concluding joint activity agreements.

During the meeting with the Institute's management, experts were presented with evidence of a sustainable and transparent residency program management system, including orders appointing responsible persons, regulations on structural divisions, job descriptions, minutes of meetings of the Academic Council and Academic Board, as well as documents regulating resource allocation and quality control of the educational process. Experts reviewed the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) Strategic Development Plan for 2023–2027, which identifies key development areas, including human capital development, improvement of postgraduate medical education, internationalization, implementation of a quality system, and sustainable development of clinical and scientific activities.

The departments and residency programs have approved work plans for the current year. An analysis of the annual reports of the departments and units involved in implementing the program for specialty 7R01109 "Adult and Pediatric Cardiac Surgery" revealed systematic work in several interrelated areas: faculty and supervisor development, clinical activities, research, and improvement of educational and methodological support. Responsibility for managing reputational risks and shaping the educational institution's reputation has been assigned to the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) administrative and management unit and relevant units, with representatives of which a separate expert meeting was held. Residency training is carried out in strict compliance with regulatory requirements for resident admission, including the Standard Rules for Admission to Institutions Providing Higher and Postgraduate Education, orders of the Ministry of Health of the Republic of Kazakhstan, and the internal admission rules of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID). Residents' knowledge, clinical skills, and professional behavior are assessed based on approved assessment criteria and tools, including formative and summative assessments, privilege sheets, and the results of ongoing and final assessments. To implement the educational program, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has a clearly defined organizational structure, in which the educational sector is represented by the Department of Advanced Education, departments, and residency program directors.

The experts reviewed documents confirming the completion of resident training in other specialties, including orders for admission to final state certification, protocols of the State Attestation Commission, and sample residency completion certificates. A residency completion certificate is issued to graduates who successfully pass the final assessment and contains information about the specialty, qualifications, duration of training, and program achievement.

The quality assurance program for postgraduate medical education was developed at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) within the framework of the Academic Policy and Internal Quality Assurance System and approved by the Institute's authorized governing bodies. The management of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), the Department of Postgraduate Education, the Academic Council, faculty, clinical supervisors, and student representatives participate in the development and implementation of this program. All stakeholders are informed about the quality assurance program through the official website, corporate newsletters, meetings of collegial bodies, and workshops.

The educational programme in the specialty "Adult and Pediatric Cardiac Surgery" is supported by the necessary teaching and methodological documents, qualified faculty, and clinical supervisors, enabling the program to be implemented in a stable and sustainable manner. Completion of resident training is documented by the issuance of a residency completion certificate and the assignment of a qualification recognized by national healthcare authorities. Therefore, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) complies with the requirements and recommendations of

national regulators, including the Ministry of Science and Higher Education of the Republic of Kazakhstan and the Ministry of Health of the Republic of Kazakhstan, in full compliance with the nomenclature of residency specialties approved by Order No. RK MOH-305/2020 of the Minister of Health of the Republic of Kazakhstan dated December 21, 2020.

8.2 Shared governance

The Department of Postgraduate and Continuing Education (DPCE) is responsible for defining the responsibilities and duties of management and staff in the field of postgraduate medical education at the JSC "Research Institute of Cardiology and Internal Diseases" (RICID). This authority is enshrined in the Regulation on Continuing and Professional Education, approved by the decision of the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) Academic Council dated May 16, 2023 (Minutes No. 2).

Openness and accountability of educational processes are achieved through regular communication of key decisions to the staff through official documents and the institute's information resources; publication of minutes of meetings of collegial bodies (Academic Council, Educational Programs Committee, Academic Council, etc.); and clear regulation of the decision-making procedure in the "Academic Policy" approved by the Academic Council on May 16, 2023 (Minutes No. 2).

The educational organization regularly evaluates the performance of educational management and staff in the context of achieving the residency program mission and expected learning outcomes through surveys of residents and faculty, annual certification of faculty and supervisors, and internal audits on the quality of the educational process, compliance with academic policies, and the effectiveness of supervising, as regulated by the Regulation on Faculty Certification and Internal Audits.

According to the survey, when asked, "Do the organization's management listen to your opinions regarding educational process matters, research, and clinical activities?", 100% of faculty indicated that their opinions are taken into account.

Residency programs are funded by the organization's budget and revenues from paid educational services. The Department of Planning and Economic Analysis is responsible for planning, allocating, and monitoring financial resources. Its powers and responsibilities are defined in employee job descriptions (approved by the Chairman of the Board on December 27, 2023) and internal regulations.

The resident training budget for 2025–2026 has been approved at 292,206,300 (two hundred ninety-two million, two hundred six thousand, three hundred) tenge, which is in line with the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) strategic development plan. Compared to 2024, the funding amount has been increased by 7% due to the expansion of the list of specialties.

During a meeting with representatives of the financial and economic department, it was confirmed that budget execution is monitored through an annual financial report, which is reviewed by the Board of Directors of JSC "Research Institute of Cardiology and Internal Diseases" (RICID) and reflects the allocation of resources in accordance with the needs of educational programs. Key expenditure areas: educational resources: over 136,000,000 (one hundred thirty-six million) tenge (including simulation equipment and computer technology). The faculty and supervisor salary fund amounts to 381,417,092 (three hundred eighty-one million, four hundred seventeen thousand, ninety-two) tenge, and the resident stipend fund amounts to 20,334,264 (twenty million, three hundred thirty-four thousand, two hundred sixty-four) tenge. JSC "Research Institute of Cardiology and Internal Diseases" (RICID) annually allocates 20 to 30 million tenge to improve the educational environment. Specifically, 22,000,000 tenge is planned for 2025; 27,000,000 tenge for 2026.

A financial report is prepared annually and approved by the JSC "Research Institute of Cardiology and Internal Diseases" (RICID) Board. It reflects the distribution of educational resources in accordance with the needs of residency programs, including expenses for training, clinical practice, assessment, infrastructure, and human resource development.

Experts believe that the educational institution has sufficient financial and organizational stability, as it has an approved development strategy, stable funding sources, and a well-established resource management system that ensures the continuous implementation of residency programs.

The organizational structure update process is based on an analysis of the performance of structural divisions and decisions of the Management Board. In 2023, changes were made to strengthen the role of the DPCE, redistribute responsibilities for supporting educational programs, and expand supervising mechanisms.

The residency educational process has been updated, including updating the curricula, revising rotations, and introducing elements of competency-based and practice-oriented learning. These updates are being reviewed and approved at meetings of the Academic Council and are accompanied by the development of updated syllabi, privilege sheets, and assessment tools.

To specifically improve the educational process at the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID), sociological surveys of resident and faculty satisfaction are being conducted and best international practices in postgraduate medical education (**WFME, ESG**) are being analyzed. Based on these results, teaching approaches were revised and active learning methods, clinical reviews, resident portfolios, and elements of simulation training were introduced.

8.3 Postgraduate doctor and staff representation

The educational institution has established and implemented a system of representation for residents and staff, ensuring their meaningful and structured participation in the management of the educational process and the development of residency programs, which complies with WFME standards for student involvement in decision-making processes.

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has advisory and consultative bodies, including the Academic Council, departmental educational and methodological committees, and working groups for the development and revision of educational programs, assessment tools, and clinical requirements. These groups include resident representatives with the right to participate in the discussion and development of proposals regarding educational content, rotation organization, clinical practice conditions, assessment, and the educational environment.

Mechanisms for resident participation are not formal but rather functional, and include opportunities to: express opinions on key aspects of program implementation; make suggestions for improving the educational process; participate in the discussion of internal monitoring and feedback results; and influence the adjustment of educational and organizational decisions.

To support resident engagement and motivation, the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) uses mechanisms to encourage participation in social and academic activities, including recording engagement in resident portfolios, supervisor recommendations, participation in the institute's scientific and educational projects, and recognition of residents' contributions in shaping their individual development trajectories.

Resident survey results indicate that students generally understand their role as active participants in the educational process, citing the accessibility of program directors and the opportunity to discuss current educational issues. However, experts believe that further development requires formalizing feedback and systematizing mechanisms for documenting the influence of residents' opinions on management decisions, which is fully consistent with WFME and ESG recommendations for closing the quality loop (feedback-action-feedback).

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) implements a resident development program aimed at developing not only clinical but also leadership, communication, and research competencies, reflecting the WFME and ESG approach to training physicians as future leaders of the healthcare system. The program includes resident participation in research projects, clinical conferences, interdisciplinary discussions, educational seminars, and institute working groups.

Thus, resident representation at the Research Institute of Cardiology and Internal Medicine meets the basic requirements of WFME and ESG and demonstrates a shift from formal participation to a

partnership model in which residents' opinions are considered an important source of data for improving the quality of educational programs and the educational environment.

8.4 Administration

The JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has established a sufficient and appropriate administrative and teaching staff to ensure the sustainable operation and development of residency programs. The administrative staff involved in supporting postgraduate medical education comprises over 20 employees (the Department of Postgraduate Education, the Department of Finance and Economics, the Department of Accounting and Finance, IT services, and quality management divisions). The teaching and supervising staff comprises 144 specialists, including educational programme directors, clinical supervisors, and instructors in specialized disciplines. The educational process is managed with the participation of the Chairman of the Board, the Academic Council, the Department of Postgraduate Education, and the residency program directors.

To ensure effective management of the educational process, employees of the Department of Postgraduate Education and relevant departments underwent advanced training in 2024–2025 on topics related to educational quality management, the implementation of ESG and WFME standards, internal audits, a risk-based approach, digital tools for monitoring educational programs, and student-centered learning.

Experts determined that the quality management system (QMS) at JSC 'Research Institute of Cardiology and Internal Diseases' (RICID) has been implemented since 2018 and functions as an integrated part of the institution's overall management. The QMS includes regular internal and external audits, including those covering processes supporting the residency programs. Examples include annual internal audits of the Department of Postgraduate Education, a plan-versus-actual analysis of educational programme resource provision, an assessment of curriculum implementation, and an analysis of resident and faculty satisfaction, as well as management audits and reviews as part of the preparation and confirmation of compliance with JCI standards.

The Quality Management and Risk Management Department is responsible for the implementation, maintenance, and monitoring of the quality management system, working closely with the center management, the Department of Postgraduate Education, and the Board of Directors of the JSC 'Research Institute of Cardiology and Internal Diseases' (RICID). Faculty and supervisors are familiar with the principles and tools of the quality management system, as confirmed by interviews, as well as their participation in internal assessment procedures, quality indicator analysis, and discussion of the results at collegial meetings.

The key documents of the quality management system include the Quality Policy, Quality Manual, internal audit regulations, educational programme assessment procedures, risk management policies, standard operating procedures (SOPs), and key performance indicator reporting forms. The assessment of the administration and management of the educational process and the educational programme for the Cardiac Surgery (Adult and Pediatric) residency program is conducted through an annual internal audit, analysis of key performance indicators, monitoring of curriculum implementation, analysis of feedback from residents and faculty, and management reviews at the Board and Academic Council levels. The results of this assessment demonstrate stable staffing, transparent resource allocation, timely funding of educational activities, a high level of program governance, and the presence of continuous improvement mechanisms, all in line with the requirements of ESG II Part 1.9 and the WFME (Quality Governance) principles.

Conclusions of EEC by criteria. Comply with 8 standards: 8 - fully, 0 - partially, 0 - not compliant

CONCLUSION: During an external assessment of the residency for compliance with educational programme in specialty 7R01109 "Cardiosurgery adult, pediatric" the external expert commission of the Eurasian Center for Accreditation and Quality Assurance in Education and Health Care (ECAQA)

found that out of the 109 standards for accreditation, 101 were fully compliant, 8 were partially compliant, and no non-compliance was identified. These results demonstrate a high level of compliance with national and international standards for accreditation, including the WFME and ESG principles.

The educational programme is characterized by a coherent architecture, a clearly defined management system, sustainable administrative and financial support, and a high level of integration between clinical practice, research and education. The RICID has demonstrated the existence of an effective internal quality assurance system based on regular monitoring, plan-versus-actual analysis, internal audits and feedback mechanisms with postgraduate doctors, teachers and clinical supervisors. The programme's personnel, logistical and clinical support enable it to achieve the stated learning outcomes and develop postgraduate doctors' professional competencies that meet the modern requirements of cardiac surgery practice.

Partial implementation of individual standards is primarily due to the need for further institutionalization and more precise formalization of certain processes, including systematization of educational programme monitoring, expansion of academic mobility mechanisms, strengthening of pedagogical training for external clinical supervisors and intensification of documented analysis of feedback results and management decisions. These aspects are developmental in nature and do not critically impact the quality of the educational programme.

Overall, the external expert commission concludes that the residency educational programme in specialty 7R01109 "Cardiosurgery adult, pediatric" is implemented on a sustainable organizational and resource basis, aligns with the mission and strategic goals of the RICID, ensures the training of competitive specialists, and has significant potential for further development and improvement.

Based on the results of the external assessment, the external expert commission recommends accreditation of the residency educational programme in specialty 7R01109 "Cardiosurgery adult, pediatric" for the period established by the ECAQA accreditation rules, taking into account the implementation of the proposed recommendations as part of the continuous renewal of the quality of postgraduate medical education.

5. Recommendations for Improvement of the Educational Programme 7R01109 "Cardiosurgery adult, pediatric":

Standard	Recommendations for Improvement
1.2.1	It is recommended to formalize and document the participation of students and employers in revising the educational programme's mission through Academic Policy procedures, with mandatory review by the Academic Council and coordination by the DPE.
3.1.2	- It is recommended to implement a KPI system for formative assessment of the control and measurement equipment for the residency educational programme based on the 2025–2028 Roadmap, with regulated monitoring of results and the use of structured assessment tools, including a postgraduate doctor checklist (LogBook) and an OR Check (Operating Room Check), to document and analyze individual clinical learning progress.
3.1.4	- It is recommended to consider the use of psychometric evaluation of control and measurement equipment in the development and revision of postgraduate doctor learning outcome assessment tools, using the data obtained for academic decision-making.
5.1.1	- Ensure the implementation of advanced training for supervisors and external part-time employees through structured pedagogical training with mandatory documentation of content, practical components (clinical skills assessment, formative assessment, supervising), learning outcomes and subsequent application in the residency educational process (Standard 5.1.1);
5.3.2.	- Ensure mandatory pedagogical training for teachers and external part-time employees of residency programmes according to the approved module, with documentation of acquired competencies and confirmation of their application in the educational process (Standard 5.3.2);
5.3.4	- Introduce a regulated system of academic mobility for postgraduate doctors and teachers, including international internships, with established selection criteria, partner organizations and mechanisms for crediting learning outcomes (Standard 5.3.4).
6.2.4	Expand the use of the existing simulation center in residency programme 7R01109 "Cardiosurgery adult, pediatric" by introducing specialized cardiac surgery simulation modules with mandatory recording of practical skills acquisition.
7.1.4	Introduce regulated monitoring of the educational programme implementation with mandatory regular collection of structured teaching staff feedback, review of results by the Academic Council and documented use in programme adjustments.

6. Recommendation to the ECAQA Accreditation Council

The EEC members determined that the residency educational programme in specialty 7R01109 "Cardiosurgery adult, pediatric" complies with standards for accreditation and unanimously recommend that the ECAQA Accreditation Council accredit this programme for a period of three (3) years.

	Full Name
Chairperson	Igimbayeva Gaukhar Tleubekkyzy
International Expert	Babakulov Sharaf Khamrakulovich
Academic Expert	Sarsenbayeva Gulzhan Iskendirovna
Employer Expert	Rakishev Bauyrzhan Aldabergenovich
Student Expert	Suleimanov Rafik Borisovich

6. Рекомендация Аккредитационному совету ЕЦА

Члены ВЭК установили соответствие образовательной программы резидентуры АО «Научно-исследовательский институт кардиологии и внутренних болезней» по специальности «7R01109 – Кардиохирургия взрослая, детская» Стандартам аккредитации программы последиplomного медицинского образования и пришли к единогласному мнению рекомендовать Аккредитационному совету ЕЦА аккредитовать данную программу на период 3 года.

	ФИО	Подпись
Председатель	Игимбаева Гаухар Тлеубеккызы	
Международный эксперт	Бабакулов Шараф Хамракулович	
Академический эксперт	Сарсенбаева Гульжан Искендировна	
Эксперт-работодатель	Ракишев Бауыржан Алдабергенович	
Эксперт-резидент	Сулейманов Рафик Борисович	

Профиль качества и критерии внешней оценки образовательной программы (обобщение)

Standard	Критерии оценки	Количество стандартов	Оценка		
			Полностью соответствует	Частично соответствует	Не соответствует
1.	МИССИЯ И ЦЕННОСТИ	6	5	1	-
2.	ОБРАЗОВАТЕЛЬНАЯ ПРОГРАММА	28	28	-	-
3.	ОЦЕНКА РЕЗИДЕНТОВ	15	13	2	-
4.	РЕЗИДЕНТЫ	19	19	-	-
5.	ПРЕПОДАВАТЕЛИ И КЛИНИЧЕСКИЕ НАСТАВНИКИ	8	5	3	-
6.	ОБРАЗОВАТЕЛЬНЫЕ РЕСУРСЫ	15	14	1	-
7.	ОБЕСПЕЧЕНИЕ И УЛУЧШЕНИЯ КАЧЕСТВА ПОСЛЕДИПЛОМНОЙ ПОДГОТОВКИ	10	9	1	-
8.	УПРАВЛЕНИЕ И АДМИНИСТРИРОВАНИЕ	8	8	-	-
	Всего:	109	101	8	-
			109		

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

№	Наименования документов	Количество
1.	Отчет по самооценке программы резидентуры по специальности 7r01109 «Кардиохирургия взрослая, детская» на соответствие стандартам аккредитации программы последипломного медицинского образования, Акционерное общество «Научно-исследовательский институт кардиологии и внутренних болезней»	1
2.	Кодекс чести преподавателя	1
3.	Академический календарь резидентуры	1
4.	Кодекс чести слушателя резидентуры	1
5.	Сферы компетенции выпускника резидентуры	1
6.	Перечень документов для поступления в резидентуру	1
7.	Академическая политика АО НИИКВБ	1
8.	Положение о промежуточной аттестации	1
9.	Положение об итог. госуд. аттестации	1
10.	Портфолио резидентов	2
11.	Журналы посещаемости резидентов по дисциплинам	5
12.	Экзаменационные ведомости	5
13.	Сертификаты повышения педагогической квалификации	2
14.	Положение об орг. уч. процесса	1
15.	Положение об отделе ПО	1
16.	Положение о стимулировании публикационной активности и научно-исследовательской деятельности	1
17.	Положение об оплате труда, премировании, оказании материальной помощи и иных социальных выплатах АО НИИКВБ	1
18.	Каталог элективных дисциплин	1
19.	РУП программы резидентуры	1
20.	Анкета и результат опроса ППС за 2019 год	1
21.	Утвержденный список клинических наставников	1
22.	Сведения о штатах преподавателей, ведущих занятия по аккредитуемой образовательной программе, показатели острепенности и категорийности с учетом дисциплины	7 личных дел
23.	Индивидуальные планы преподавателей	7
24.	Индивидуальные планы резидентов	2
25.	Договоры оказания образовательных услуг	2

ПРОГРАММА
посещения Внешней Экспертной Комиссии (ВЭК)
НУ «Евразийского Центра Аккредитации и обеспечения качества образования и
здравоохранения» (ЕЦА) АО «Научно-исследовательский институт кардиологии и
внутренних болезней» (НИИКВБ) в рамках первичной специализированной (резидентура)
аккредитации, адрес: г.Алматы, ул.Айтеке би 120/25
даты внешней оценки: 9-10 декабря 2025 года

Время	МЕРОПРИЯТИЕ	ПРИМЕЧАНИЕ
08.12.2025	Заезд членов ВЭК	
День первый– 09.12.2025 (вторник)		
8:45	Сбор членов ВЭК в НИИКВБ (г.Алматы, ул.Айтеке би 117/25) Место проведения– административный корпус, 4 этаж, компьютерный зал	Административный корпус, 2 этаж, Школа пациента
9:00-9:20 (20')	Совещание членов ВЭК: обсуждение целей, задач внешней экспертизы, программы и графика посещения НИИКВБ. Распределение ответственности между членами ВЭК.	Административный корпус, 2 этаж, Школа пациента
09:20-09:50 (30')	Встреча с руководством НИИКВБ: Тулентаев Рустем Мухтарович - Председатель Правления, Phd, асс. профессор. Кайбуллаева Джамия Ахтановна - заместитель Председателя Правления по научно-клинической и инновационной работе, к.м.н., асс. профессор. Тогызбаев Галымжан Асылбекович - заместитель Председателя Правления по терапевтической службе, д.м.н. Хамзина Акканым Лукпановна - заместитель Председателя Правления по стратегическим и финансово-экономическим вопросам.	Административный корпус 2 этаж, малый конференц зал <i>Стандарты 1,7,8</i>
09:55-10:20 (25')	Абдикалиев Нурлан Абдикалиевич, руководитель отдела стратегического развития и организационно-методической работы, д.м.н., профессор. - Даниярова Лаура Бахытжановна - руководитель отдела менеджмента научных исследований к.м.н.	Административный корпус 2 этаж, малый конференц зал <i>Стандарты 1,2,6,7,8</i>
10:25-11.25 (60')	Иванченко Н.Н., руководитель департамента послевузовского и дополнительного образования, к.м.н. Документация программы резидентуры	Административный корпус 2 этаж, малый конференц зал <i>Стандарты 1,2,3,4,5,7,8</i>
11:30 – 12:20 (50')	Посещение базы обучения резидентов, практические и семинарские занятия: АО «Научно-исследовательский институт кардиологии и внутренних болезней». Библиотека Симуляционный центр	Отделения, 4 этаж библиотека, симуляционный центр <i>Стандарты 2,3,4,5,6,7</i>

12:25 – 13:00 (35')	Интервью с преподавателями программы резидентуры по «Кардиохирургии» Тулеутаев Р.М., Мусагалиева А.Т., Султанов Г.Б.	Административный корпус 2 этаж, малый конференц зал <i>Стандарты 2,5,6,7</i>
13:00 – 14:00	Перерыв на обед	
14.00 – 15.00 (60')	Оценка реализации смежных дисциплин программы резидентуры по кардиохирургии Посещение баз обучения: 1. Центральная городская клиническая больница № 12, 2. ГКП на ПХВ «Центр перинатологии и детской кардиохирургии» г. Алматы,	1 ул. Ораза Жандосова, 6 2 ул. Басенова 2А. <i>Стандарты 2,4,5,6,7</i>
15.00- 15.15 (15')	Встречи онлайн с преподавателями смежных дисциплин: Паримбеков А.Б., Калжанов А.О., Баграмов А., Никитенко А., Суртай Абай Кабылбекулы, Ибрагимова Айна Атабековна, Изучение документации смежных дисциплин программы резидентуры	Административный корпус 2 этаж, малый конференц зал
15.20 – 15.50 (30')	Интервью с работодателями выпускников резидентуры онлайн:	Административный корпус 2 этаж, малый конференц зал <i>Стандарты 2,4,7</i>
15:55- 17:00 (65')	Изучение документации отдела послевузовского образования и по программам резидентуры по кардиохирургии: планы и отчеты, УМКД, силлабус, КИСы, библиография, индивидуальные планы резидентов, портфолио резидентов.	Административный корпус, 2 этаж, Школа пациента
17:00- 17:30 (30')	<i>Совещание ВЭК:</i> обсуждение результатов оценки, обмен мнениями. Подведение итогов первого дня визита. Завершение 1-го дня визита ВЭК	Административный корпус, 2 этаж, Школа пациента
День второй – 10.12.2025 (среда)		
8:45	Сбор членов ВЭК в НИИКВБ (г.Алматы, ул.Айтеке би 120/25) Малый конференц зал, 2 этаж	Административный корпус, 2 этаж, Школа пациента
9:00-9:20 (20')	Совещание членов ВЭК. Обсуждение 2-го дня визита.	
09:20- 09:40 (20')	Встреча с сотрудниками обеспечивающих служб: Айжолова Гульнар Кенжехановна - руководитель Управление человеческими ресурсами и правового обеспечения. Майманова Молдир Аскарровна - главный специалист отдела планирования и экономического анализа.	Административный корпус, малый конференц зал, 2 этаж <i>Стандарты 1,5,8</i>
09:45- 10:15 (30')	Интервью с резидентами 1 курса ОП «Кардиохирургия»: Отегенова Акмарал Джамбуловна, Мұрат Сағындық Төлегенұлы	Административный корпус, малый конференц зал, 2 этаж <i>Стандарты 2,3,4.5,6,7</i>

10:20-10:50 (30')	Обучающие мероприятия для резидентов Занятия по дисциплине: кардиохирургия в стационаре (взрослая)	<i>Симляционный центр Стандарты 2,5,6</i>
10:50-11:30 (40')	Документации по запросу членов ВЭК. Встречи с сотрудниками НИИКВБ по запросу членов ВЭК	Административный корпус, 2 этаж, Школа пациента
11:30-12:10 (40')	Профиль качества и критериев оценки на соответствие стандартам аккредитации ЕЦА образовательной программы резидентуры НИИКВБ	Административный корпус, 2 этаж, Школа пациента
12:15 – 13:15	– Перерыв на обед	
13:15 – 16:00	– Проектирование отчета. Разработка рекомендаций по улучшению образовательной программы резидентуры.	Административный корпус, 2 этаж, Школа пациента
16:00 – 16:30	– Оглашение результатов внешней оценки образовательной программы резидентуры по кардиохирургии.	Административный корпус, малый конференц зал, 2 этаж
16:30 – 17:30	– Обработка результатов внешней оценки. Подписание документов. Завершение работы.	Административный корпус, 2 этаж, Школа пациента