

To the Accreditation Council of the
Eurasian Center for Accreditation and
Quality Assurance in Higher Education and Healthcare
July 14, 2023

**REPORT
OF EXTERNAL EXPERT COMMISSION
ON THE RESULTS OF EDUCATIONAL PROGRAMME EVALUATION
7R01170 “ADULT, PEDIATRIC PULMONOLOGY”
FOR COMPLIANCE WITH THE ACCREDITATION STANDARDS
OF POSTGRADUATE EDUCATION PROGRAMMES (RESIDENCY
SPECIALTIES) OF MEDICAL EDUCATIONAL ORGANIZATIONS
JSC "RESEARCH INSTITUTE OF CARDIOLOGY AND INTERNAL
DISEASES"**

external expert evaluation period: June 29 – July 1, 2023

Almaty, 2023

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LIST OF SYMBOLS AND ABBREVIATIONS

Abbreviation	Definition
PBL	Problem-based learning
TBL	Team-based learning
EEC	External expert commission
SAC	State Attestation Commission
SCES	State Compulsory Educational Standard
ECAQA	Eurasian Center for Accreditation and Quality Assurance in Higher Education and Healthcare
CED	Catalog of elective disciplines
MH RK	Ministry of Healthcare of the Republic of Kazakhstan
MES RK	Ministry of Education and Science of the Republic of Kazakhstan
ES	Emergency situations
JSC	Joint-Stock Company
RI	Research Institute
RICID	Research Institute of Cardiology and Internal Diseases
RW	Research work
NLA	Normative legal acts
EP	Educational programme
OSCE	Objective Structured Clinical Examination
PMC	Primary medical care
TS	Teaching staff
WC	Working curriculum
Mass media	Mass media
ISW	Independent student (resident) work
IRWT	Independent resident work under the supervision of a teacher
TM	Teaching materials
SC	Scientific Council
CPP&AE	Center for Postgraduate Professional and Additional Education

1. Composition of the External Expert Commission

In accordance with ECAQA Order No. 16 dated June 15, 2023, an External Expert Commission (hereinafter referred to as the EEC) was formed to conduct an external evaluation of the residency educational programme in specialty 7R01170 “Adult, pediatric pulmonology” during the period June 29 – July 1, 2023, consisting of the following members:

№	Status as part of the EEC	Full name	Academic degree/title, position, place of work/place of study, course, specialty
1	Chairman	Morenko Marina Alekseevna	Doctor of Medical Sciences, Professor, Head of the Department of Children's Diseases with courses in Allergology, Hematology and Endocrinology of NJSC "Astana Medical University", Vice-President of the Association of Immunologists of the Republic of Kazakhstan, Chief Children's Allergist-Immunologist of the Astana University Hospital
2	Foreign expert	Saatova Guli Mirakhmatovna	Doctor of Medical Sciences, Professor, Head of the Department of CardioRheumatology of the Institution “National Center for Maternal and Child Health” of the Ministry of Health of the Kyrgyz Republic, Chief Rheumatologist of the Ministry of Health of the Kyrgyz Republic, Vice-President of the Association of Rheumatologists of Central Asia and Kazakhstan
3	Academic expert	Zhumalina Akmaral Kanashevna	Doctor of Medical Sciences, Professor, Head of the Department of Childhood Diseases with Neonatology of the NAO West Kazakhstan State Medical University named after. M. Ospanova"
4	Academic expert	Kurmanova Almagul Medeubaevna	Doctor of Medical Sciences, Professor of the Department of Clinical Disciplines of the Higher School of Medicine of Al-Farabi Kazakh National University, Leading Researcher at JSC Scientific Center for Obstetrics, Gynecology and Perinatology, Almaty
5	Employers' representative	Alimbetova Mayra Serikovna	Deputy Director for the Medical Department of the Almaty Multidisciplinary Clinical Hospital of the State Public Enterprise at the RPV "Almaty Multidisciplinary Clinical Hospital"
6	Residents' representative	Ismailov Musa Kenzhegaliuly	Resident 2 years of study in the specialty "General Surgery" NAO "

The observer from ECAQA is Umarova Makpal Aldibekovna, Head of the Accreditation and Monitoring Department.

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

The EEC report contains an evaluation of the residency educational programme in specialty 7R01170 “Adult, pediatric pulmonology” for compliance with the Accreditation Standards for postgraduate education programmes (residency specialties) of medical educational organizations and conclusions (hereinafter referred to as the Accreditation Standards), EEC recommendations for further improvement of approaches and conditions for the implementation of the above-mentioned 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 the specialty 7R01170 “Adult, pediatric pulmonology”

Name of organization, legal form of ownership, BIN	Research Institute of Cardiology and Internal Diseases, Joint Stock Company, 990240008700
Management body	supreme body - Sole shareholder; management body - Board of Directors; executive body – Management Board; control body – Internal Audit Services.
Full name of the first head	Pashimov Marat Orumbassarovich
Date of establishment	1977
Location and contact details	Aiteke Bi street 120, Almaty 050000. <u>8 (7272) 33 00 61</u>
State license for educational activities in residency (date, number)	license for educational activities KZ19LAA00012857, issued by the Control Committee in Education and Science under the Ministry of Education and Science of the Republic of Kazakhstan dated April 7, 2010
Information about branches, subsidiaries (if any)	no
Year of implementation of the accredited educational programme (EP)	Planned from 2023
Duration of training	2
Total number of graduates since the implementation of the EP	-
Number of residents in the EP since the beginning of the current academic year	-
Full-time teachers/part-time teachers involved in the implementation of the EP, incl. % of degree	The total number of teachers is 3, including 3 full-time teachers, no part-time teachers. Degree, % - 100% Categorization, % - 100%
Website Instagram Facebook with active pages	https://ncvb.kz/ https://www.instagram.com/nii_cardiology/ https://www.facebook.com/ncvbmzrk/

The Kazakh Research Institute of Cardiology was created in December 1977 and in 2001 it was transformed into the Research Institute of Cardiology and Internal Diseases. In 2010, it received the status of the Republican State enterprise on the Right of Economic Management, in 2018 - the status of a joint stock company.

JSC "RICID" (Research Institute of Cardiology and Internal Diseases) is a multidisciplinary clinic with a capacity of 188 beds, providing highly qualified and specialized medical services in 8 areas, providing outpatient and advisory medical services, implementing educational services for training physicians in residency and additional medical education .

Today, JSC "RICID" is the flagship of cardiological, cardiac surgical and therapeutic services in Kazakhstan, where highly qualified, specialized (SMC), high-tech (HTMC), inpatient replacement (IRMC) and outpatient medical care (OMC) are provided to patients with severe and complex in diagnosing diseases from all regions of the Republic.

To provide high-tech, specialized care there is the institute’s clinical base which is designed for 188 beds, including: 155 budgetary, 33 beds for the provision of paid services. Ward beds within the

framework of the guaranteed volume of free medical care are distributed according to profiles: cardiac surgery department - 17 beds; Department of X-ray endovascular surgery - 32 beds; rhythm disturbance department - 30 beds; therapy No. 1 - 26 beds; therapy No. 2 - 25 beds; Department of Cardiology and Rehabilitation – 25 beds. Provision of paid services - 33 beds. Department of Anesthesiology, Resuscitation and Intensive Care - 6 beds. Day hospital - 15 beds. In 2022, 7637 patients were treated (2020 - 6135, 2021 - 6071), including: HTMC - 463, SMC - 5827, rehabilitation - 1347. Treated in a day hospital - 2084 patients (2020 - 1371, 2021 - 1898).

For 2022, distribution by disease structure:

- 1) Diseases of the circulatory system -65.8%;
- 2) Diseases of the musculoskeletal system and connective system-9,8%
- 3) Diseases of the digestive system-6,8%

Outpatient care: the Consultative and Diagnostic Center (CDC) provides a full range of consultative, outpatient care in 8 specialties (cardiology, cardiac surgery, gastroenterology, endocrinology, allergology, nephrology, hematology, rheumatology) for the adult population.

- The Republican Allergological Center (RAC) provides diagnosis and treatment of allergic and immunological diseases and their prevention for children from birth and adults. The staff has 25 employees: 12 physicians, 8 nurses, 3 registrars, 2 ward attendants.

The goal of the medical organization is to strive for a high level of medical care for each patient through the synergy of research, education and clinical practice. To implement the mission, JSC "RICID" continues to improve clinical activities to provide high-tech care to the population of the Republic of Kazakhstan. The implementation of the main objectives contributes to the development of clinical practice in accordance with international standards of quality and patient safety, meeting the needs of the population.

For the first time in the Republic of Kazakhstan, innovative technologies were introduced: implantation of the Optimizer device, modulating cardiac contractility in patients with CHF (2020); cryoablation or destruction of arrhythmogenic zones during open cardiac surgery (2020); thoracoscopic epicardial clipping of the left atrial appendage (2021).

As part of a strategic partnership, the institute cooperates with international clinical centers and universities from near and far abroad: Scientific Research Institute of Cardiology of the Tomsk National Medical Research Center, Federal State Budgetary Institution "National Medical Research Center" named after V.Almazov, National Medical Research Center named after Academician Ye.Meshalkin, Novosibirsk, Russia, CJSC "Crisis Research Center" Kaunas, Republic of Lithuania, Seoul National University Hospital, Republic of Korea, Beer Sheva Medical Center, Israel, University Hospital of Milan, Italy. Memoranda of cooperation were concluded with the Republican Specialized Scientific and Practical Medical Center for Surgery named after Academician V.Vakhidov of the Republic of Uzbekistan. A clinical trial agreement was concluded with the SERVIER Institute of International Studies (France).

2020 - The best enterprise in Kazakhstan according to the International Association "Union of Economic Development". In August 2021, JSC «RICID» received JCI accreditation, which is the most prestigious and objective recognition of the quality and safety of services in a medical organization. In October 2021, JSC «RICID» passed National accreditation in the field of healthcare and received the Highest category. A Certificate of the Kazakhstan Book of Records of Kazakhstan Information and Encyclopedic Directory, dedicated to the 30th anniversary of Independence of the Republic of Kazakhstan, was issued.

RICID implements 8 educational residency programmes. The total number of students in the 2020-2021 academic year was 52 residents.

Requirements for the level of training of residency graduates in the specialty 7R01170 "Adult, pediatric pulmonology" are formulated in the educational programme in accordance with: - State Compulsory Educational Standard of the Republic of Kazakhstan for residency in the specialty "Adult, pediatric pulmonology", approved by order of the Minister of Healthcare of the Republic of Kazakhstan dated July 4, 2022 under No. ҚР ДСМ-63 ; Order of the Ministry of Healthcare of the

Republic of Kazakhstan “On approval of the Rules for the training of medical personnel in internships and the Rules for the training of medical personnel in residency” dated September 18, 2018 under No. KP ДСМ-16.

Residency training in the specialty 7R01170 “Adult, pediatric Pulmonology” is carried out full-time, the duration of training is 2 years. According to the State Compulsory Educational Standard, the educational programme for training residents is designed for 140 credits - major disciplines: compulsory component - 132 credits, elective component - 4 credits, midterm assessment - 2 credits, end-of-course assessment - 2 credits.

2.2 Information about previous accreditation

To date, accreditation of the educational programme 7R01170 “Adult, pediatric Pulmonology” has not been carried out.

2.3 Conclusion based on the results of reviewing the self-assessment report of the residency educational programme in specialty 7R01170 “Adult, Pediatric Pulmonology” for compliance with the Accreditation Standards for postgraduate education programmes (residency specialties) of medical educational organizations and conclusions

The self-assessment report of the residency educational programme in the specialty 7R01170 “Adult, Pediatric Pulmonology” (hereinafter referred to as the report) is presented on 120 pages of main text, 9 pages of attachments, copies or electronic versions of 37 documents located at <https://cloud.mail.ru/public/9Qqv/joiwD94ai>

Residency training in the educational programme 7R01170 “Adult, pediatric pulmonology” is being introduced for the first time, there are no students. The head of the EP is O.V.Mashkunova.

The report is characterized by responses to 8 basic accreditation standards and criteria, structured taking into account the recommendations of the Guidelines for self-assessment of the educational programme provided to the educational organization by the accreditation center - ECAQA. The report is accompanied by a covering letter signed by the Chairman of the Board M.O.Pashimov, which confirms the accuracy of the quantitative information and data included in the self-assessment report.

Standard 9 “Continuous renewal” will be included in the assessment during post-accreditation monitoring in the event of a positive decision on accreditation of the educational programme.

The report contains a list of 10 members of the internal self-assessment commission indicating the responsibilities of each employee, information about the representative of the organization responsible for conducting self-assessment of the educational programme - Tundybayeva M.K., head of the department of postgraduate and additional education (PG&AE).

Self-assessment of the educational programme 7R01170 “Adult, pediatric pulmonology” was carried out on the basis of order No. 92 dated 11.04.2023 “On conducting specialized accreditation for 5 educational programmes of JSC “Research Institute of Cardiology and Internal Diseases” and No. 96 dated 11.04.2023 “On the creation of a working groups for organizing and conducting specialized accreditation for 5 educational programmes of JSC “Research Institute of Cardiology and Internal Diseases” and order No. 132P dated 11.05.2023 “On approval of the internal accreditation commission”.

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

All standards contain principles for training residents in specialty 7R01139 “Therapy”, taking into account the start of admission of students in 2023, examples of methodological support tools to ensure compliance with the requirements of accreditation standards. The self-assessment report provides data on the number of teachers, admission policy, assessment of knowledge and skills, data on the material and technical base of the research institute, plans for development and improvement, etc.

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

The quality of the self-assessment report served as the basis for moving to the next stage of the accreditation procedure - external evaluation. The experts plan to validate the report data, compare the data from the report with the information that will be received during the visit to the educational organization, i.e., carrying out verification of quantitative and qualitative indicators.

3. Description of external expert evaluation

External expert work as part of the evaluation of the educational programme 7R01170 “Adult, pediatric pulmonology” was organized in accordance with the Guidelines for conducting external evaluation of educational organizations and educational programmes of the ECAQA and in accordance with the programme approved on May 13, 2023 by the General Director of the ECAQA Sarsenbayeva S.S. and agreed with the Chairman of the Board of JSC “RICID” M.O.Pashimov. Dates of visit to the organization: June 29 - July 1, 2023.

External evaluation is aimed at validating the data of the self-assessment report and verifying indicators showing the degree of compliance with the criteria of accreditation standards.

The sequence of the visit implementation within 3 days is presented in detail in the Visit Programme (hereinafter referred to as the programme), which is located in the documentation of the accreditation center. The programme is evidence of the implementation of all planned activities within the framework of external expert evaluation.

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

- conversation with management and administrative employees – 9 people;
- interviews with residents of other specialties – 10 people and graduates – 3;
- studying the website <https://ncvb.kz/>;
- interviewing 5 employees, 4 teachers, mentors;
- survey of teachers - 10;
- observation of resident training: attendance at practical classes;
- review of resources in the context of meeting accreditation standards: 1 practice/clinical engagement base was visited;
- study of educational and methodological documents in the amount of 54 units both before the visit to the organization and during the visit to the departments (the list of documents studied is in **Attachment 2**).

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

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

№	Job title	Quantity
1	Management of RICID - Chairman of the Board, deputies for scientific, clinical and innovative work; strategic, financial and economic issues, head of the department of strategic development and organizational and methodological work	4
2	Head of the Department of Postgraduate and Additional Education	1
3	Resident teachers	4
4	Employees of supporting services – HR department	1
5	Residency graduates	3
6	Residents	10
7	Employers of residency graduates	3

On the last day of the visit to the organization, a meeting of EEC members was held based on the results of the external evaluation. A final discussion was held on the results of the external evaluation of the educational programme, study of documents, results of conversations, interviews, and questionnaires. EEC members began drafting the final report of the EEC. Generalizations of the results of the external evaluation are made. The experts individually completed the “Quality Profile and criteria for external evaluation of the educational programme **7R01170 “Adult, pediatric pulmonology”** for compliance with the ECAQA Accreditation Standards.” Recommendations for improving the educational programme were discussed and the chairperson Morenko Marina Alexeyevna held a final open vote on the recommendations for the ECAQA Accreditation Council for the accreditation period of 3 years.

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

Residents were not surveyed.

According to 50% of teachers, the survey conducted by ECAQA is useful for developing recommendations for improving key areas of activity of an accredited educational organization.

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

4. Analysis for compliance with accreditation standards based on the results of an external evaluation of the residency educational programme in specialty 7R01170 “Adult, pediatric pulmonology”

Standard 1: MISSION AND OUTCOMES

Evidence of compliance:

1.1 Mission statement

When implementing programme activities, namely, based on the results of a conversation with the first head of the organization, members of the consultative and advisory body (Scientific Council), in interviews with residents and teachers, compliance with the criteria of **standard 1** was established. All participants in the educational process know the mission of the educational programme, took part in generating proposals for formulating a mission, while the mission is brought to the attention of potential residents through the website, social networks and information letters to medical organizations. The organization's strategic plan for 2022-2026 was reviewed, which includes areas such as *an Integrated Academic Healthcare System with improved productivity and improved quality of research activities, as well as improved quality of educational services*, which confirms the implementation of the accreditation standard and demonstrates the goals, objectives and prospects of the organization. From interviews with residents, it was established that before the start of classes, teachers inform about the mission, work plans of the educational organization, tell where to get the necessary information about the educational programme, teachers and training bases.

During the visit to the departments of the educational organization, experts noted the strengths of the educational organization in relation to the accredited educational programme, including:

1. The research institute has procedures for the development and adoption of legal acts and their management.
2. The medical organization contributes to the development of professionalism among residents by creating conditions for mastering the necessary competencies.
3. The research institute has developed educational programmes based on a competency-oriented model of a residency graduate, in accordance with the needs of society and the labor market.
4. High commitment and continuity of residency students to this research institute.
5. Demand for graduates of the research institute residency.

6. Highly qualified teachers and mentors implementing residency programmes.

7. The Institute has sufficient material and technical base and provides the opportunity to master the necessary clinical skills and competencies.

8. The research institute has a system for continuous improvement of the postgraduate educational process with a stable financial position.

RIVID has units that are directly related to the educational programme 7R01139 “Therapy”, which can be noted as the best practice in education. The main areas of graduate competencies are presented as universal (basic, general, key, super-professional) and professional (subject-specific). Special skills among residents are formed due to the fact that RICID occupies an advantageous position in the market for the provision of services: specialized and highly specialized care, including the provision of high-tech medical care to patients of therapeutic, cardiological and cardiac surgery profiles.

The results of studying the documentation demonstrate that the mission of the organization and the mission of the educational programme 7R01170 “Adult, pediatric pulmonology” and the educational process is built in accordance with the State Compulsory Educational Standard and normative legal acts (NLA) in postgraduate education and healthcare.

1.2 Professionalism and professional autonomy

Based on needs, new educational programmes are being developed in priority areas of healthcare, master classes are held with the invitation of foreign specialists; RICID employees participate in conferences and undergo training abroad. Work is actively underway to improve elective disciplines that complement educational programmes. A resident physician has access to patients; on a daily basis they are involved in the diagnostic and treatment process, supervise patients in the hospital, manage patients and carry out diagnostic and therapeutic procedures.

To verify **standard 1**, a meeting was held with the head of the organization. It should be noted that the Chairman of the Board sets himself the task of training highly professional personnel, has a clear understanding of strategic goals - assesses the needs of healthcare - expansion of services in the southern region, reconstruction of laboratory services. Despite the short period (3 months) of administration, he made a number of organizational decisions at the research institute - in the reception department there is a triage system, with an electronic queue; work is being done to motivate teachers and students.

The 10 teachers of residency programmes surveyed (21 survey questions) answered that 80% were satisfied with the organization of work and workplace in this educational organization, and 20% partially agreed with this statement. Experts determined that the organization has a healthy microclimate, since the head is quite accessible to both residents and employees and responds promptly to requests. In the questionnaire, 70% of teachers are satisfied with the microclimate of the organization, and 30% are partially satisfied. According to 70% in the educational organization a teacher has the opportunity to realize himself/herself as a professional in his/her specialty. The teaching experience of the respondents: up to 5 years - 50%, up to 10 years - 20%, over 10 years - 30%.

1.3 Training outcomes

"RESEARCH INSTITUTE OF CARDIOLOGY AND INTERNAL DISEASES" informs the public about the established training outcomes, ensures continuity between the training outcomes of programmes of basic medical education, internship and educational programme 7R01170 “Adult, pediatric Pulmonology.” The training results of the educational programme are presented in the passport of educational programmes of RICID and posted on the website <http://www.ncvb.kz/>. The list of outcomes (the most common diseases and conditions to be diagnosed and treated; practical skills, manipulations, procedures) is reflected in the educational programme “Therapy”.

The Academic Policy of RICID also stipulates joint meetings with residents of all years of study in the relevant specialty on academic, disciplinary and other work issues. When undergoing training at RICID, a resident physician, in addition to specialized competencies, is instilled with the concept of “professional ethics”. Each student, upon entering RICID, signs an agreement, one of the clauses of

which is the obligation to follow the disciplinary requirements of “the Code of Business Ethics of JSC “RICID”. RICID students have rights and responsibilities, including maintaining the student’s academic integrity.

RICID also guarantees continuity between the outcomes of residency training and subsequent programmes of continuous professional development. For this purpose, RICID applies a system for ensuring the quality of education, based on determining its innovative potential of the educational programme and the real value of the knowledge contained at the moment. The latest achievements of science and practice reflected in the educational programme are implemented by inviting experts from leading medical organizations to conduct various seminars and master classes.

The surveyed teachers responded that 30% were completely satisfied with the level of previous training of residents, and 50% were partially satisfied.

100% of teacher respondents believe that this organization has enough equipment and resources to conduct training.

1.4 Participation in the formulation of mission and outcomes

The academic policy of RICID declares that RICID formulates the mission and determines the training outcomes of the programme, taking into account proposals from other stakeholders.

The main stakeholders are identified as students, employees and graduates. The participation of the RICID administration in the formation and support of the quality policy of the residency educational programme is determined by the function of monitoring the quality of training of students and the level of teaching academic disciplines; coordination of research activities of the RICID resident, support for participation in the implementation of republican and international scientific projects; replenishment of the library collection, expansion of information resources. At the teaching staff level - the introduction into the educational process of new approaches to patient management, various master classes and seminars. At the level of the Ministry of Education and Science of the Republic of Kazakhstan - development of a regulatory framework in the field of educational services, criteria for assessing the achievements of residents' training outcomes (interim and end-of-course assessment).

The Academic Policy of RICID provides for monitoring the external and internal environment, studying the best practices (benchmarking) of similar institutions. Based on the analysis of external and internal environmental factors, an initial register of potential risks for the relevant processes is formed, then the risk manager of the institute enters the risks into the general register of risks according to RICID. This analysis mainly includes the results of feedback from employers, graduates, analysis of internal infrastructure and industry-specific requirements, which was reflected in the compilation of a catalog of elective disciplines and principles for conducting independent work of residents.

At the same time, when talking with residents and employers, experts did not receive a clear answer to the question “Do you participate in the formulation of the mission and goals of the organization, educational programme?”, “What is the personal contribution of residents to improving the educational programme?” As those responsible for the self-assessment report on the residency educational programme themselves note, there are barriers to participation in the formulation of the mission and outcomes on the part of stakeholders: students - in the form of time and resource limitations; Teaching staff and mentors – lack of awareness, lack of understanding of processes; administrative staff – incomplete representation.

Interaction with scientific communities also needs to be developed, namely, attracting representatives of medical scientific communities to their participation in formulating the mission and determining the training outcomes of resident therapists based on accounting proposals received from them.

However, RICID demonstrates its desire to comply with state requirements in the field of reforming medical education and international accreditation standards.

Conclusions of the EEC by the criteria. Compliant with 14 standards (including 9 basic, 5 improvement standards): fully - 14, partially – 0, not compliant – 0.

Standard 1: implemented

Standard 2: EDUCATIONAL PROGRAMME

Evidence of compliance:

2.1 Framework parameters of the postgraduate medical education programme

RICID implements credit-modular training technology and has developed a competency model for residents. The outcomes of resident training are to ensure the training of qualified, competitive personnel that meet modern requirements for the quality of medical specialists for independent work in a particular specialty.

To implement the educational programme in the specialty 7R01139 “Therapy”, the organization’s documents contain Teaching materials, which defines the goal, takes into account the integration of practical and theoretical components and independent work. Compliance with state compulsory educational standard and standard requirements has been established. The organization ensures compliance with ethical aspects in the implementation of the educational programme, since experts studied the code of honor dated June 18, 2020, and during the interview residents responded that they were informed about the contents of this document.

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

The procedure for informing residents about their rights and responsibilities is reflected in the Personnel Policy.

This demonstrates compliance with Standard 2 in terms of tailoring training to the needs of residents. At the same time, along with the principles of quality and academic integrity, which are described in the document Regulations on the Center for Postgraduate and Additional Education, the organization does not have an anti-plagiarism system.

2.2 Scientific method

Educational programme 7R01170 “Adult, pediatric pulmonology” provides training in research skills (preparing messages, reports, conducting research, publishing scientific articles, poster reports, working in scientific circles, participating in scientific and practical conferences, etc.). The content of the educational programme includes the elective “Modern Scientific Research”.

The “Learning through Research” programme, taking into account the real needs of modern medicine, is integrated into the educational process and includes training from the perspective of evidence-based medicine. Residents use knowledge of evidence-based medicine, monitoring and analysis of clinical studies in accordance with the disciplines studied in the EP. Participation of residents in scientific research with the presentation of results at conferences, congresses and in medical publications is encouraged by additional points to the portfolio.

Teachers of the educational programme 7R01170 “Adult, pediatric Pulmonology” (Yessetova G.U., Salimova S.S.) are the developers of methodological recommendations “Strategy of rational antibacterial therapy in pulmonology”, “Functional diagnostics in the clinical practice of a pulmonologist”, members of the organizing committees of scientific and practical conferences. Residents are required to undergo GCP training and receive a certificate. This entitles residents to participate in clinical research. Residents of RICID for the period 2018-2023 took part in international observational programmes, as well as clinical studies of II-IV phases.

The educational programme integrates the scientific foundations and methodology of medical research, including clinical research and clinical epidemiology, but the specific discipline and number of hours must be specified in the EP.

When talking with residents, experts learned that they use scientific evidence in their training and know the basics of evidence-based medicine.

The teachers said that they teach residents methods of critical evaluation of literature, articles and scientific data and the application of scientific developments.

2.3 Structure, content and duration of the residency programme

Residency programmes are implemented in accordance with the Academic Policy of Residency Educational Programmes of JSC "Research Institute of Cardiology and Internal Diseases", Rules for organizing the educational process in residency, approved by the Decision of the Scientific Council dated September 2, 2022, protocol No.4. There are documents containing requirements for the structure and content of educational programmes, including Academic Policy, Regulations on postgraduate and additional education, on ongoing monitoring of academic performance, on the development and approval of educational programmes. Responsibility for the selection and implementation of innovations in the educational process lies with the PG&AE Center.

The content of work programmes and the catalog of elective disciplines reflect the needs of the healthcare system, as well as the specifics of research and scientific achievements of teachers. For the successful implementation of the educational programme in specialty 7R01139 "Therapy", the organization has the resources to organize an assessment of the practical skills of residents. The integration of education, science and practice, the involvement of resident physicians in the learning process through research is undoubtedly the strength of the Institute.

Teachers provide residents with methodological and didactic materials, additional literature to prepare for classes, with which 100% are completely satisfied.

The organization has its own clinical base with 188 beds and 10,000 outpatient visits per year, contracts have been concluded with medical organizations, including 8 foreign ones (Research Institute of Cardiology of the Tomsk National Medical Research Center, Federal State Budgetary Institution "National Medical Research Center" named after V.Almazov, National Medical Research Center named after Academician Ye.Meshalkin, Novosibirsk, Russia, CJSC "Crisis Research Center" Kaunas, Republic of Lithuania, Seoul National University Hospital, Republic of Korea, Beer Sheva Medical Center, Israel, University Hospital of Milan, Italy).

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

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

The experts got acquainted with the work of the departments, including 2 therapeutic consulting and diagnostic departments, RAC.

The training of residents in specialty 7R01170 "Adult, pediatric pulmonology" is aimed at meeting the needs of practical healthcare, as there is a shortage of specialists. Therefore, this organization is specialized in the field of training of general practitioners. Moreover, the Research Institute is the National Coordinator of DMP, provides organizational and methodological support for the implementation of DMP and conducts quarterly monitoring of DMP indicators using the Electronic Database of DMP Indicators developed by RICID. As part of the Disease Management Programme (DMP) implemented in Kazakhstan, aimed at improving the management of chronic diseases such as arterial hypertension, chronic heart failure and type 2 diabetes mellitus, 575 specialists from multidisciplinary teams from 6 regions were trained in a mixed format during 2022 (in 2021 - 665, in 2020 - 1567).

In this regard, it provides a lot of opportunities and conditions for qualified training of therapists. Residents of the specialty 7R01170 "Adult, pediatric pulmonology" can supervise patients with diseases such as coronary artery disease, acute myocardial infarction, arterial hypertension, congenital heart disease, heart failure, diabetes mellitus, thyrotoxicosis, idiopathic thrombocytopenic purpura, hemolytic anemia, Crohn's disease and ulcerative colitis, chronic hypertension, cirrhosis of the liver, asthma, COPD, or rheumatoid arthritis, nephrotic syndrome, etc. This is facilitated by the mentoring that is carried out in the organization.

When surveying teaching staff in the learning process, 100% analysis, 70% problem-based learning, 90% сфыу зкшидуьы are used.

Conclusions of the EEC by the criteria. Compliant with 22 standards (including 19 basic, 3 improvement standards): fully -21, partially - 1, not compliant - 0.

Standard 2: implemented

Recommendations for improvement identified during the external visit:

- 1) To provide for proper representation of residents in advisory bodies (2.4.4).

Standard 3: RESIDENT ASSESSMENT

Evidence of compliance:

3.1 Assessment methods

The policy and procedure for assessing training outcomes within the EP is carried out using criteria developed in accordance with the set goals and objectives for the implementation of the EP and assigned qualifications within the framework of the current point-rating system for assessing knowledge and monitoring the educational process in accordance with directive, regulatory and internal documents. The policies and methods for assessing residents are reviewed and approved at a meeting of the Department of Postgraduate and Additional Education (PG&AE) of RICID. Checklists have been developed for conducting current, midterm and end-of-course assessment in the discipline.

The study of control and measurement tools showed that the organization has implemented an appropriate assessment policy that allows for a comprehensive assessment of the educational achievements of residents. During interviews, residents spoke about the assessment forms and that they were satisfied with everything. They also receive regular feedback from teachers. The results of students' educational achievements are planned to be entered into the «Platonus» programme (as acquired). The system of appealing assessment results is reflected in the Order on the creation of the appeal commission, the Academic Policy; during the period of operation of the educational organization there were no precedents for appeal.

Thus, to verify the data of **standard 3**, the experts asked questions to the head of the department of PG&AE and checked the documents and methods for assessing residents. The organization has CMT. The head of the education department responded that additions and updates to the CMT are planned for the next academic year.

During a visit to the organization and during a conversation with the head of the Department of PG&AE A.B.Tashetova, the commission was convinced that there is a documentation system that is transparent and accessible to all teachers and employees, and includes documents such as annual operating plans, annual reports, regulations of departments, agreements with teachers and residents and educational and methodological documentation (work programme, working curricula, syllabuses, grade record books), assessment tools (checklists, statements), evidences, certificates and verifications. A review of the website showed that its pages contain documents necessary for residents and contain information that is regularly updated.

3.2 Relationship between assessment and training

Monitoring the progress of residents is carried out in the form of formative, summative assessment, as well as through regular feedback from clinical mentors and supervisors. Current monitoring of progress is assessed on a 100-point scale, the end-of-course assessment is based on a letter system for assessing the educational achievements of students.

During a visit to the organization, management was asked the question: “Are external examiners involved in order to improve the fairness, quality and transparency of the assessment process?”. And the answer was yes.

The surveyed employers of the Scientific Center of Pediatrics and Children's Surgery, City Clinical Hospital No.5 also indicated that the training of graduates corresponds to the modern development of medical practice and science. Employers said that they themselves participate in the assessment of residents. But the educational organization did not provide systematic feedback to them.

Employers believe that the training trajectory of residents should include work experience internship in regional centers and central district hospitals.

Conclusions of the EEC by the criteria compliant with 9 standards (including 6 basic, 3 improvement standards): fully - 8, partially –1, not compliant – 0.

Standard 3: implemented

Recommendations for improvement identified during the external visit:

- 1) To provide for regular assessment of the quality of the methods used for the validity and reliability of the training outcomes (3.4.1).

Standard 4: RESIDENTS

Evidence of compliance:

4.1 Admission and selection policy

Admission to the residency of JSC "RICID" is carried out under the state educational order, at the expense of local executive bodies and for a fee at the expense of citizens' own funds. Admission to a residency indicating a specialty is carried out in accordance with the Standard rules for admission to training in an educational organization.

Admission to residency, indicating the specialty, is announced through the media, by posting announcements on the university website (ncvb.kz, section "Education" - "Residency"). The Alumni Career Center also monitors the movement and career growth of institute graduates.

In 2022, 4 graduates successfully passed an independent examination and completed residency: 3 of them in the specialty "Cardiology, including pediatric" and 1 in the specialty "Anesthesiology and resuscitation, including pediatric".

Thus, experts validated the data according to **standard 4**. In general, all criteria are met, but at the same time some comments were identified. Examination tests should include questions on biomedical sciences at the pregraduate level, as well as the inclusion of residents in the process of developing resident admission and selection policies.

4.2 Number of residents.

The number of residents in the specialty 7R01170 "Adult, pediatric pulmonology" is regulated by the State order of the Ministry of Healthcare of the Republic of Kazakhstan, taking into account the material and technical resources of the RICID, the provision of educational, methodological and scientific literature. In accordance with the request of the Department of Science and Human Resources, a state order is allocated for the training of medical personnel in residency.

Department employees take part in boards, conferences, meetings, hearings of specialized commissions of the Ministry of Healthcare, «the Republican Center for Healthcare Development», and conference calls with regional healthcare departments. They also participate in "Open Doors Days" at clinical bases and provide medical, advisory, supervisory (for regions) and methodological assistance. Every year, an analysis of healthcare needs for specialists in a specific area of medicine is carried out (demographic and medical statistics, reports of regional healthcare departments of the Republic of Kazakhstan). All of the above activities are used as results in preparing requests for the formation of the number of residents in a specific specialty.

According to the regulations on residency, the number of residents in each specialty per teacher is 3:1. The resident recruitment policy provides for the fulfillment of the rights of residents in accordance with gender, ethnic, religious and social characteristics (regulated by the Constitution of the Republic of Kazakhstan, the Laws of the Republic of Kazakhstan on education, on religious activities, on languages).

There were no residents in specialty 7R01170 "Adult, pediatric Pulmonology".

4.3 Support and counseling for residents

There is a system of academic advising for residents. For this purpose, by order of the Chairman of the Board, the resident is assigned a curator from among the teaching staff, who participates in the

formation and implementation of an individual curriculum, manages the educational and scientific activities of the student and provides assistance in employment. In addition, the resident is assigned a clinical mentor in the medical organization where the resident is training. Its function is to guide the resident to master the practical skills and competencies necessary for the resident in the process of training.

Academic advising work consists of advising residents during training and before the examination session. Before the start of each examination session, a consultation schedule for disciplines is developed and approved. Before the start of each semester, the group teacher informs residents about work schedule and the time when residents can seek consultations in this discipline. Consulting for residents can be provided both in person and remotely (online, in chats). Responsibility for ensuring the quality of the educational process rests with the heads of departments and the head of the Department of PG&AE.

RICID provides support to students in the event of a professional crisis and involves the Department of PG&AE in solving their problem situations, and also guarantees confidentiality in relation to counseling and support provided.

At RICID, in order to optimize employment and monitor the careers of graduates, by order of the Chairman of the Board, a graduates' career center was organized (Regulation "On the Graduates' Career Center" dated 03.08.2020). The Graduate Career Center provides career guidance to applicants and bachelors; promotes employment of graduates; coordinates the work of all structural divisions on issues of professional guidance, annually conducts Personal distribution of graduates with the participation of representatives of healthcare departments, pharmaceutical companies and public health departments of the Republic of Kazakhstan. Graduates of RICID are employed in medical organizations in Almaty, Shymkent, Astana and 14 regions of the country - Almaty, Zhambyl, Kyzylorda, Mangystau, Turkestan regions and others.

4.4 Representation of residents

According to the Academic Policy of RICID, residents, together with the teaching staff of the institute, have the opportunity to participate in the formulation of the mission and training outcomes, during direct discussion and approval of work programmes, at the level of developing an individual working curriculum and elective disciplines. For this purpose, RICID has introduced surveys that include questions on the schedule, teaching and assessment methods, training conditions in clinics, availability of methodological and information and communication materials and relationships with teachers. Based on the results of the survey of residents, corrective action plans were developed, and a proposal was made on the need to provide greater independence and require greater activity during duty and during everyday activities at the clinical base.

RICID has mechanisms for encouraging the participation of residents in public, scientific life. RICID or beyond it's encouraged when considering portfolio materials in the form of awards, participation in republican and international conferences, master classes and trainings, publication of joint scientific works, participation in scientific research, conducted at the department.

4.5 Working conditions

Residents are annually provided with a vacation between academic years of at least 6 weeks, after the final state attestation of at least 4 weeks, with the retention of the scholarship. Combining training with work (no more than 0.5 rate) in areas of activity close to future specialty in free time from study with the consent of the curator, head of the department and the residency sector. If there is a specialist certificate, residents of the 2nd and 3rd years of study are allowed to conduct independent medical activities in public and private medical institutions, during non-curricular time.

Conclusions of the EEC by the criteria. Compliant with 20 standards: fully - 18, partially - 2, not compliant - 0

Standard 4: implemented

Recommendations for improvement identified during the external visit:

1) During the entrance exams, to include questions on biomedical sciences achieved at the pregraduate level (4.1.4)

2) To provide for the inclusion of residents in the process of developing admission policy (4.1.6).

Standard 5: TEACHERS

Evidence of compliance:

5.1 Recruitment and selection policy

Hiring of teachers is carried out in accordance with the requirements of the Decree of the Government of the Republic of Kazakhstan dated February 17, 2012 under No. 230 “On approval of the Rules for competitive replacement of positions of teaching staff and scientific workers of higher educational institutions”, order of the Minister of Education and Science of the Republic of Kazakhstan dated July 13, 2009 under No.338 “On approval of standard qualification characteristics of positions of teaching staff and persons equivalent to them.” Based on the “Regulations on the Curator of Residents,” the curator must have an academic degree of doctor, candidate of medical sciences, PhD or a higher or first category qualification, actively engaged in scientific and practical activities.

RICID has developed mechanisms and criteria for systematically assessing the effectiveness of teaching quality: these are intra-departmental control, open classes, mutual visits to classes and surveys of residents. The quality of classes and the educational materials used, the timeliness of issuing assignments for independent work, the organization of monitoring and assessment of students’ progress is analyzed at meetings of the Department of PG&AE.

RICID provides for a survey of residents (“Teacher through the eyes of residents”, “Residents’ satisfaction with the educational process”). The purpose of the rating assessment of teaching staff activities is to provide an objective assessment and self-assessment of the level of performance of professional duties of teaching staff to determine ways to further improve pedagogical skills and motivate the creative activity of teaching staff through moral and material stimulation of work.

Conditions have been created for systematic professional development of workers, improvement and standardization of the competitive personnel selection procedure. There are 3 full-time teachers, no part-time teachers.

The experts are familiar with the personnel policy and the Regulations on mentors.

External experts obtained teachers' opinions on personnel policies. The conversation with the head of the pulmonology unit, Yessetova Gulistan Utegenovna, included such questions as how residents will be provided with patients with other diagnoses, how staff from clinical bases will be involved in teaching on pediatric diseases, the strategy and tactics for recruiting residents and the information security of the educational programme. It is envisaged to conclude an agreement with the Scientific Center of Pediatrics and Pediatric Surgery for the implementation of the children's component.

For the implementation of the educational programme on the module of respiratory diseases, 5 beds are provided (with oxygen supplied, for the module “Allergoses” - in the functional division of the RICID, in the Republican Allergological Center, to provide patients with other diagnoses - it is planned to conclude agreements with clinical bases, resident physicians are participating in conducting consultations on telemedicine together with a clinical mentor, there is a mobile team in all regions of Kazakhstan.

When surveying teachers, it was found that the majority (80%) *are completely satisfied with the organization of work and the workplace in this educational organization, but 20% are partially satisfied. In this educational organization, teachers have the opportunity to engage in scientific work and publish the results of research - 70% completely agree, 30% partially agree. Satisfied with the work of the HR (personnel) service - 70% completely agree, 30% partially agree. Satisfied with salary - 30% completely agree, 10% disagree, 30% - have no answer, 30% - more yes than no.*

5.2 Faculty Commitment and Development

The Office of Personnel Administration ensures compliance with the requirements of personnel policy in the residency educational programme by monitoring the proportion of the profile of the teaching staff, compliance with the range and balance of teachers of basic biomedical sciences,

behavioral and social sciences and major (clinical) disciplines necessary for the implementation of the educational programme.

The major department guarantees the ability of the teacher to carry out all activities for training residents. The scope of work of teaching staff and clinical mentors is regulated by an individual employment contract. The calculation of the academic load of teaching staff is carried out in accordance with the Standard Rules for the activities of higher education organizations (Resolution of the Government of the Republic of Kazakhstan dated 20.05.2013 under No.499) and the state standard for levels of education (Resolution of the Government of the Republic of Kazakhstan dated 23.08.2012 under No.1080) and is annually approved by the decision of the Scientific Council. The work of the residency teaching staff is carried out according to the personal teacher curriculum.

In order to verify the data of standard 5, during a meeting with the head of the HR department and during interviews with teachers, experts received an opinion on approaches to developing the pedagogical competence of teachers, motivation to work with residents and mentoring. Thus, RICID has a policy for the professional development of department employees - training outside the main activity once every five years (at least 240 hours/credit points (4 modules), 60 hours per week). For employees who wish to undergo training without interruption from their main activities - training in the amount of 30 hours per week, or according to a specially established schedule.

Experts have found that teachers stimulate the need for additional training and independent work with literature and medical documentation. RICID provides for an employment contract, a system of moral motivation in accordance with the Labor Code of the Republic of Kazakhstan, payment of incentive bonuses to personnel, incentives for teaching staff for special personal merits and achievements, and additional types of incentives are also used: gratitude, valuable gifts, awarding a certificate of honor; submission for ranks, medals and badges of the Ministry of Healthcare and the Ministry of Education and Science of the Republic of Kazakhstan.

Over the past 5 years, 3 employees have undergone advanced training: Kaibullayeva D.A. on the topic "Basics of developing test items", 48 hours; "Effective medical lecturer", 60 hours; Tundybayeva M.K. on the topic "Organization of expert activities in healthcare", 216 hours; Dzhunusbekova G.A. on the topic "Organization of expert activities in healthcare", 216 hours; "Methodology of medical education", 108 hours.

There is an opportunity for career growth and development of *teacher competencies in the organization* - 70% of surveyed teachers responded, and 30% partially agreed with this. Studied in professional advanced training programmes - 30% during this year, 60% - within 5 years ago, 10% - have no answer.

The organization implements social support programmes for teachers - 20% answered that "yes, such programmes exist," 0% "I have already taken advantage of it," 30% of respondents answered that there are no such programmes, and 40% of respondents do not know about it.

Conclusions of the EEC by the criteria. Compliant with 8 standards (including 7 basic, 1 improvement standard): fully - 7, partially - 1, not compliant – 0.

Standard 5: implemented

Recommendations for improvement identified during the external visit:

1) To develop a programme for the development of professional and pedagogical competencies of teachers and mentors (5.2.2).

Standard 6: EDUCATIONAL RESOURCES

Evidence of compliance:

6.1 Logistics and equipment

The educational programme has the material and technical base for conducting the educational process. The Department of PG&AE includes 3 lecture halls, 11 classrooms for seminars and practical classes, 4 scientific and practical laboratories, 1 computer class, 2 scientific and methodological classrooms. To master practical skills, 4 training and simulation centers have been created - a

simulation endoscopic center; cardiopulmonary resuscitation simulation center; simulation center for interventional cardiology and arrhythmology; simulation center (hybrid laboratory) for providing “Emergency cardiac care”, providing “Urgent resuscitation care”, “Providing medical care for COVID-19”.

6.2 Clinical bases

The clinical base for training residents in the specialty 7R01170 “Adult, pediatric pulmonology” is the RICID (188 beds). The structural divisions of the Institute include a 24-hour hospital, a Consultative and Diagnostic Center (outpatient level), a day hospital (inpatient care); the structure also includes the Republican Allergological Center (RAC), a telemedicine center and a center for orphan pathology. The opportunity to provide specialized and highly specialized medical care to the population by the Institute’s staff allows resident physicians to participate in clinical, advisory and methodological assistance and specialists from the regions to participate in interdisciplinary consultations and master classes.

A review of the resources showed that they generally correspond to the goals and objectives of educational activities, and the employees of the educational organization ensure collegial and ethical relationships with medical staff and the management of the clinical base to achieve the outcomes of residents. At the same time, to implement 7R01170 “Adult, pediatric Pulmonology,” the RICID should provide a sufficient number of thematic patients with a pulmonary profile; for this, it is necessary to identify and approve clinical bases for training residents, including sanatorium and resort organizations providing rehabilitation care. The provision of thematic patients with a pulmonology profile is 5 beds.

When visiting the clinic, experts examined the resources, their compliance with training programmes, accessibility for teachers and residents, how modern this equipment is and meets the needs of students and practical healthcare. The experts obtained evidence of compliance with standard 6, as well as validation of the self-assessment report information.

In order to validate the implementation of the self-assessment report data and obtain evidence of the quality of the programmes, interviews were conducted with residents in other specialties. The experts asked questions about satisfaction with training, sufficient time for follow-up of patient, working with medical documentation in Damumed, satisfaction with teaching methods and qualifications of teachers, social and moral support for residents in need, and the availability of international databases of professional literature. Before starting the corresponding discipline of the educational programme, the resident receives from the teacher a syllabus, which reflects the skills that he/she must acquire during studies. In general, residents are satisfied with the training, assessment methods, and purposefully entered this organization, because they believe that the educational organization has good resources, image and international connections, at the same time, residents would like more independence in managing patients and conducting international events.

Residents showed their commitment to the educational organization, were active in answering questions from external experts, demonstrated their judgment in organizing training, assessing their skills, advisory support, the opportunity to participate in research work and financing. Experts examined residents’ documents (portfolios, resident assessment results, checklists).

6.3 Information technology

The Institute has a computer class with 10 seats, an electronic library room with 10 seats, 3 lecture halls with a capacity of 220 seats, equipped with modern multimedia and sound-amplifying equipment and a telemedicine center.

The institute’s corporate network provides access to modern databases in the field of medicine: “EbscoHost - Medline”, “Springerlink”, “Scopus”, “Web of Science”, “Elsevier”, “Thomson Reuters”. The library and information service consists of a subscription and a computer room, the total area of the premises is 53.5 sq.m.

6.4 Clinical teams

During the training process, residents, as a result of daily clinical activities, have the opportunity to interdisciplinary interaction in the process of discussing clinical cases (daily rounds, consensus, telemedicine consultations).

Students have free access to patients at clinical bases and all conditions for improving their practical skills - 100% of teachers completely agree with this.

6.5 Medical research and advances

Residents have the opportunity to improve their scientific thinking skills through training at seminars or master classes with the involvement of foreign specialists, as well as by participating in republican and international conferences, symposia, etc. Residents of RICID are involved as medical researchers in the implementation of scientific and technical programmes (STP) of the Ministry of Healthcare of the Republic of Kazakhstan, as well as grant research of I-IV phases. Confirmation of the relevant competence of a resident physician is the presence of a certificate of completion of GCP training in accordance with international standards.

In 2021-2023, 2 scientific and technical programmes are being implemented:

1. “National programme for the implementation of personalized and preventive medicine in the Republic of Kazakhstan.” The main contractor- NJSC «KazNMU named after S.D.Asfendiyarov», a fragment on the topic “DNA analysis of persons of the Kazakh ethnic group with a history of myocardial infarction in order to identify genes associated with myocardial infarction” is carried out by JSC “Research Institute of Cardiology and Internal Diseases” (agreement No.312/08.21 dated 31.08.2021, amount – 15,548.86 thousand tenge, 2022 – 21,602.9 thousand tenge).

2. STP for programme-targeted financing of the Ministry of Healthcare of the Republic of Kazakhstan “Development of innovative and highly effective technologies aimed at reducing the risk of premature mortality from diseases of the circulatory system, chronic respiratory diseases and diabetes.” The main contractor is JSC "Research Institute of Cardiology and Internal Diseases" (agreement No. 53 dated November 25, 2021, amount is 374,093.90 thousand tenge, in 2022 - 98,302.0 thousand tenge).

Results of the research: 10 patients with hypertrophic cardiomyopathy and obstruction of the left ventricular outflow tract were operated on, cryoablation of atrial fibrillation was performed in 20 patients during open heart surgery, 30 coronary angiographies were performed in patients with chronic forms of coronary heart disease, positive dynamics of hemodynamic parameters were established after implantation of a pacemaker in 89.4% of patients with severe chronic heart failure, a high prevalence of gestational diabetes mellitus, type 2 diabetes mellitus among women, a high prevalence and mortality from chronic obstructive pulmonary disease in the Republic of Kazakhstan have been established. The research is being continued, innovative technologies for diagnosis, treatment and monitoring are being developed and implemented.

All research and scientific and technical programmes conducted at RICID are aimed at studying, analyzing, standardizing epidemiological indicators for major chronic non-communicable diseases (cardiovascular, chronic respiratory diseases, diabetes), developing and implementing highly effective technologies for diagnosing, treating and monitoring these diseases, which is subsequently reflected in management decision-making and strategic planning of the healthcare system.

An interview with 4 teachers, including 4 full-time teachers, showed that there are both successes and problems in the management of education, depending on the specific base (admission of residents to equipment, a sufficient number of thematic patients, time to maintain medical records, independent work).

6.6 Educational expertise

In order to ensure the quality of the EP, RICID carries out systematic monitoring and evaluation of the effectiveness of the EP at all levels on a regular basis through: examination of the EP content by members of working groups from the PG&AE Department; annual revision of syllabuses taking into account new requirements.

The examination is carried out in the form of an analysis of the needs for specialists, an analysis of resident training methods, and the results allow us to draw conclusions about the quality of innovative changes in postgraduate education.

As a result of the ongoing work on expertise in the field of education, RICID has implemented appropriate innovations in the educational process, which allow the development of broader and more

specialized competencies (Assessment of mastery of practical procedures, Discussion of a clinical case, Examination of a patient, Portfolio assessment).

6.7 Training in other institutions

The Institute cooperates within the framework of a strategic partnership with international clinical centers and universities near and far abroad: cardiology - Research Institute of Cardiology (Tomsk, Russian Federation), National Medical Research Center named after V.A.Almazov (St. Petersburg, Russian Federation), National Medical Research Center named after Academician Ye.N.Meshalkin (Novosibirsk, Russian Federation), “Center for Crisis Research” (Kaunas, Republic of Lithuania), Seoul National University Hospital (Republic of Korea), Beer Sheva Medical Center (Israel), University Hospital of Milan (Italy).

As part of international cooperation, RICID conducts master classes for arrhythmologists - with performing operations on patients with complex rhythm disorders (DMedSc S.Artemenko, Federal Research Center for Fundamental and Translational Medicine, Russian Federation), for perfusionists - Innovations in the field of perfusion and cardiopulmonary bypass, intravascular imaging of the coronary arteries, stenting of the coronary arteries.

Master classes were organized for endocrinologists on diagnostic and treatment standards in endocrinology (Prof., DMedSc Ye.Moshkovich, head of the Institute of Endocrinology, Metabolic Diseases and Diabetology, Tel-Aviv, Israel), on insulin pump therapy for pregnant women with diabetes mellitus.

RICID is a Center for clinical trials of II-III phase, bioequivalence (phase 2A), participates in international projects: multicenter randomized research on rhythm disorders (France, Russian Federation, Kazakhstan); grant research “Improving the outcomes of surgical myocardial revascularization based on the development of comprehensive innovative management of patients after intervention” (Rakisheva A.G.).

Conclusions of the EEC by the criteria. Compliant with 18 standards (including 11 basic, 7 improvement standards): fully - 17, partially - 1, not compliant - 0

Standard 6: implemented

Recommendations for improvement identified during the external visit:

1) To implement EP 7R01170 “Adult, pediatric Pulmonology”, it is necessary to provide a sufficient number of thematic patients with a pulmonological profile; for this it is necessary to identify and approve clinical bases for training residents, including sanatorium-resort organizations providing rehabilitation care (6.2.1).

Standard 7: EDUCATIONAL PROGRAMME EVALUATION

Evidence of compliance:

7.1 Monitoring and evaluation mechanisms

Monitoring of the residency educational programme is carried out at the course level and at the level of the PG&AE Department.

At the course level, methodological support for the educational process and monitoring the outcomes of the student population is being developed; methodological support (work programme, syllabuses, test items based on the results of mastering the discipline) is submitted for discussion and approval to the Department of PG&AE, the Chairman of the Board and the Scientific Council; then the schedule is generated; discussion and approval of the individual curriculum, clinical mentors of the residency student, methods of formative and summative assessment, forms of final control; informing the Department of Postgraduate Education about the resident’s progress and attendance; monitoring the development and implementation of the curriculum, filling out a portfolio by the resident.

At the level of the PG&AE Department - together with the quality management department, development of feedback questionnaires for the student population and employers; coordination and approval of the clinical mentor of the student population; organizing and conducting annual and final state attestation of residency students; monitoring the compliance of the outcomes with the specialist’s

competencies.

The end result of monitoring the implementation of the residency educational programme in specialty 7R01170 “Adult, Pediatric Pulmonology” will be: the compliance of the EP with qualification characteristics of 7.1.C-7.2.B levels with the industry qualification framework; employment, compliance of the material and technical base, content of educational and methodological support with the achievement of outcomes.

7.2 Feedback from teachers and residents

Despite the fact that there are no feedback results on EP 7R01170 “Adult, children Pulmonology”, RICID has developed a policy for collecting feedback. Thus, the collection of feedback on the quality of the educational programme is provided in the form of daily formative assessment by the teacher of the discipline; periodically - by a supervisor, a clinical mentor, at the end of studying the discipline in the form of a score of 360⁰. The results of the analysis of feedback from residents are presented at a meeting of the Scientific Council, where a decision is made to make adjustments to the residency educational programme.

An assessment of clinical bases and the sufficiency of resources (material, technical, human, educational and scientific literature, etc.) is provided in the format of the Department’s Annual Report, with a SWOT analysis and an indication of weaknesses.

When studying the documentation, the PG&AE Department provided information on the annual collection of opinions on the quality of the educational programme from employers. At the same time, there is no information on the results of feedback from teachers and residency graduates.

7.3 Resident and Graduate Outcomes

In accordance with the Regulations on Residency, the outcomes of residents are assessed in the form of formative, summative assessment and feedback from clinical mentors and supervisors.

Formative assessment of the resident’s competencies is carried out by the supervisor during consultations, clinical rounds, rotation of residents in the clinic, in the form of an oral analysis of the results of a joint examination of patients with the supervisor, by providing oral feedback, as well as when assessing the portfolio. The manager must verbally communicate to the resident the dynamics of the mastered competencies (progress/regression); in addition, a checklist is used as a formative assessment.

The outcomes of residents are intended to be assessed by collecting feedback from all interested parties (residents, graduates, employers) during questionnaires and in the form of reviews; conducting focus groups with students to analyze the content of individual disciplines and residency EP - annually; monitoring progress and quality of knowledge, results based on the results of interim (once a semester) and end-of-course attestations (annually); creation of groups from the Department of PG&AE for the examination of EP; organization of an independent examination of the results with the participation of leading practical healthcare specialists.

Taking into account the mission of the residency EP 7R01170 “Adult, pediatric Pulmonology”, which is to train a qualified pulmonologist with universal and professional competencies for independent work in modern healthcare conditions, pulmonology residents must study such basic disciplines as Pulmonology, outpatient, in the hospital - adult, pediatric, functional diagnostics. It is planned to create a specialized department - the Department of Internal Diseases with courses, where those responsible for the specialty will be responsible for developing the competencies of students in the disciplines taught, the quality of teaching and updating the content of educational programmes in accordance with the development of science and technology.

7.4 Stakeholder engagement

In order to ensure transparency and objectivity in assessing the educational achievements of residents, leading representatives of practical healthcare are involved in working with residents as mentors, as well as in the interim and end-of-course attestation of graduates. Regular updates to the CED are the result of an ongoing analysis of feedback from stakeholders. The main external stakeholder is the Ministry of Healthcare of the Republic of Kazakhstan, which monitors the educational achievements of residents through the National Center for Independent Examination - a

process is carried out by external experts. External quality assurance is guaranteed by the accreditation procedure.

The participation of external stakeholders in the processes of monitoring and evaluation of the educational programme is achieved through their inclusion in the collegial bodies of RICID.

Every year, the heads of medical organizations where graduates are employed provide feedback on residency graduates. Thus, 15 opinions of employers are presented on determining the level of training, skills and competence of graduates. Employers in almost all regions of Kazakhstan noted the importance of undergoing quality internship, increasing hours of practice, developing clinical thinking and developing a sense of responsibility for people's lives.

The interview with 3 employers was conducted online and included questions such as: knowledge of the university's mission, participation in the development of the mission and proposals for the strategic plan, participation in the work of advisory bodies, satisfaction with the basic knowledge and skills of residents, participation in resident training through mentoring, providing the department and residents with the necessary resources for practical training and the formation of clinical thinking, about the problems of interaction with departments and universities in general, employment of residency graduates, etc.

7.5 Procedure for approval of educational programmes

Residency educational programme 7R01170 "Adult, pediatric Pulmonology" of RICID was created by a working group, reviewed by the Educational Programmes Committee, approved by the Scientific Council and submitted for inclusion in the register of educational programmes. On the RICID website www.ncvb.kz in the Residency section there is a Passport of educational programmes and a Curriculum. The Academic Policy provides for procedures for the annual updating of educational programmes through updating through individual curricula of students based on the choice of elective disciplines by residents, collecting feedback from residents to determine the level of satisfaction of residents with the content of the educational programme, organizing the educational process in the form of questionnaires, focus groups, monitoring applications.

Conclusions of the EEC by the criteria. Compliant with 10 standards (including 7 basic, 3 improvement standards): fully - 9, partially - 1, not compliant - 0

Standard 7: implemented

Recommendations for improvement identified during the external visit:

1) To develop a mechanism for applying the results of feedback (from teachers, residents, residency graduates, employers) to improve the residency educational programme 7R01170 "Adult, pediatric Pulmonology" of JSC "RICID" (7.2.1).

Standard 8: MANAGEMENT AND ADMINISTRATION

Evidence of compliance:

8.1 Management

RICID conducts a 4-stage analysis of the external environment to make adjustments to the existing strategy. At the first stage, an industry analysis is carried out (the specific characteristics of not only the current state of healthcare in the Republic of Kazakhstan are determined, but also the prospects for its development in the future), at the second stage - an analysis of competitors, identification of all organizations with which RICID is in interaction, assessment of prospects for further cooperation); at the third stage - analysis of macroenvironmental factors, the degree of their influence on the institute. The fourth stage is the end-of-course assessment of all environmental factors.

Documents have been developed and approved that define the scope of responsibilities and powers of the institute in relation to residency EP in accordance with the normative legal acts of the Ministry of Healthcare of the Republic of Kazakhstan and the Government of the Republic of Kazakhstan, as well as internal rules.

The PG&AE Department belongs to the administrative structural divisions of the clinic that

organize the training of residents and advanced training cycles. The work plan of the Scientific Council of RICID includes the issue “Annual report of the Head of the Department of PG&AE”.

Residency graduates who have successfully completed the EP in accordance with the working curriculum and passed the end-of-course attestation, by decision of the State Attestation Commission, are issued a Certificate of Completion of State-issued residency, with a transcript that reflects the results of mastering all disciplines on working curriculum, GPA, the number of training hours and credits.

8.2 Academic leadership

Transparency of management and decision-making for the residency educational programme 7R01170 “Adult, Pediatric Pulmonology” is ensured by the presence of an Academic Policy, the functioning of collegial governing bodies, a quality management system and a system for collecting feedback from stakeholders.

Information about educational residency programmes is presented in the Passport of educational programmes published on the RICID website. Information for admission to residency is published on social networks. There is also a press service that provides public relations, information materials and analytical reports on thematic issues.

The medical personnel training system uses a mechanism for forming an order for personnel training: conducting industry monitoring, i.e. tracking the current and future needs of employers for personnel of various qualifications; joint marketing research of the labor market and the educational services market; planning the opening of new specialties, areas of training and retraining of personnel; promoting employment of graduates; development of educational programmes for targeted training, training of young specialists for specific jobs; monitoring the professional growth of graduates in the workplace; providing employers with recommendations to improve the training of graduates in each specialty.

To the question of the questionnaire “Do the leaders of the organization listen to your opinion regarding issues related to the educational process, research work, clinical work,” 70% of teachers answered that systematically, 20% answered “sometimes”, 10% - no answer.

8.3 Training budget and resource allocation

Responsibility and authority for managing the budgets of the residency EP is assigned to the Deputy Chairman of the Board for Financial and Economic Affairs, the Planning and Economic Analysis Department and the Accounting and Reporting Department.

The distribution of resources for resident training is regulated by the Ministry of Healthcare of the Republic of Kazakhstan (Budget Programme 006). Calculation of training costs is regulated in accordance with Order of the Ministry of Healthcare of the Republic of Kazakhstan under No.474 “On approval of standards for calculating the cost of training for one resident, residency student, master’s student, doctoral student (PhD) in educational organizations and scientific organizations in the field of healthcare within the country under the state educational order (with amendments and additions in accordance with the Order of the Ministry of Healthcare of the Republic of Kazakhstan dated August 8, 2011 under No.510 as of August 8, 2011), the Development Plan of JSC “RICID”, the Public Procurement Plan of JSC “RICID” for the current year.

8.4 Administration and management

To implement the EP, qualified teaching staff are involved that meet the requirements of the Law of the Republic of Kazakhstan “On Education”, State Compulsory Educational Standards for residency programmes, the Academic Policy of JSC “RICID”, and the Regulations on Clinical Mentors of JSC “RICID”.

The structural unit responsible for implementation and effectiveness of residency educational programmes are provided by the PG&AE Department. The responsibility of teaching staff is regulated by job descriptions and individual development plans. Clinical mentors are appointed and assigned by order of the Chairman of the Board.

The main issues regarding the organization and implementation of residency programmes are resolved at meetings of the residency educational programmes committee, which is a collegial body

that includes those responsible for residency specialties, as well as representatives of practical healthcare.

8.5 Requirements and normative acts

JSC "Research Institute of Cardiology and Internal Diseases" provides educational services in accordance with the perpetual state license for postgraduate professional education under No.KZ19LAA00012857 dated September 18, 2018.

The documents regulating the educational activities of JSC "RICID" are the Regulations on the PG&AE Department, on the development and approval of EP, the Regulations on the clinical mentor, on the ongoing monitoring of the progress of interim and end-of-course attestation of students and the corresponding standard operating procedures.

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

Standard 8: implemented

Recommendations for improvement identified during the external visit: none

CONCLUSION:

When conducting an external evaluation of the educational programme, it was found that out of **114 standards** (including 82 basic standards and 32 improvement standards), full compliance is demonstrated by 112 accreditation standards, including 105 basic standards and 7 improvement standards. 7 improvement standards were partially met. No non-compliance with standards has been identified.

5. Recommendations for improving the educational programme 7R01170 “Adult, pediatric Pulmonology” of JSC “RICID”:

1. To provide for proper representation of residents in advisory bodies (2.4.4).
2. To provide for regular assessment of the quality of the methods used for the validity and reliability of the training outcomes (3.4.1).
3. At entrance exams, to include questions on biomedical sciences achieved at the pregraduate level (4.1.4)
4. To ensure that residents are included in the admissions policy development process (4.1.6).
5. To develop a programme for the development of professional and pedagogical competencies of teachers and mentors (5.2.2).
6. To implement the educational programme 7R01170 “Adult, pediatric Pulmonology”, it is necessary to provide a sufficient number of thematic patients with a pulmonological profile; for this it is necessary to identify and approve clinical bases for training residents, including sanatorium-resort organizations providing rehabilitation care (6.2.1).
7. To develop a mechanism for applying the results of feedback (from teachers, residents, residency graduates, employers) to improve the residency educational programme 7R01170 “Adult, pediatric Pulmonology” of JSC “RICID” (7.2.1).

6. Recommendation to the ECAQA Accreditation Council

The EEC members came to a unanimous opinion to recommend that the Accreditation Council accredit the educational programme **7R01170 “Adult, pediatric Pulmonology” of JSC “Research Institute of Cardiology and Internal Diseases”**, which complies with the Accreditation Standards of postgraduate education programmes (residency specialties) of medical educational organizations for a period of **3 years**.

	Full name	Signature
Chairperson of EEC	Morenko Marina Alekseevna	
Foreign Expert	Saatova Guli Mirakhmatovna	
National Academic Expert	Zhumalina Akmaral Kanashevna	
National Academic Expert	Kurmanova Almagul Medeubaevna	
Employers' Representative	Alimbetova Mayra Serikovna	
Residents' Representative	Ismailov Musa Kenzhegaliuly	

**Quality profile and criteria for external evaluation of an educational programme
(generalization)**

St an da rd	Criteria for evaluation	Number of standar ds	BS*/IS	Evaluation		
				Fully compliant	Partially compliant	Not compliant
1.	MISSION AND OUTCOMES	14	9/5	14		
2.	EDUCATIONAL PROGRAMME	22	19/3	21	1	
3.	RESIDENT ASSESSMENT	9	6/3	8	1	
4.	RESIDENTS	20	14/6	18	2	
5.	ACADEMIC STAFF/TEACHERS	8	7/1	7	1	
6.	EDUCATIONAL RESOURCES	18	11/7	17	1	
7.	EVALUATION OF THE EDUCATIONAL PROGRAMME	10	7/3	9	1	
8.	MANAGEMENT AND ADMINISTRATION	11	8/3	11	0	
9.	CONTINUOUS RENEWAL	2	1/1	-	-	
		114	82/32		112	

List of documents studied by EEC members as part of an external evaluation of the residency educational programme

No.	Document name	Quantity
1	Academic policy	1
2	Residents involved in science	1
3	Agreement with CP No.5	1
4	Agreement with JSC SKMA	1
5	Agreement with NAO MUK	1
6	Job description of a resident physician (Kazakh, Russian)	2
7	ISM competency model of graduate resident	1
8	Personnel policy	1
9	Process map	1
10	Code of honor	1
11	Bed capacity	1
12	CED rheumatology	1
13	Memorandum	1
14	Employers' opinions about RICID graduates 2019	2
15	On approval of prices for paid services provided during residency training dated 11.08.2022	1
16	EP Allergology and Immunology	1
17	EP Anesthesiology and Reanimatology	1
18	EP Gastroenterology	1
19	EP Cardiology	1
20	EP Pulmonology adult, pediatric	1
21	EP Rheumatology	1
22	EP Therapy	1
23	EP Endocrinology	1
24	employment report for residency graduates 2	1
25	employment report for residency graduates	1
26	CEP Plan	1
27	PC teaching staff plan for 2023-2024	1
28	Regulations on Clinical Mentors	1
29	Regulations on the YSC (Council of Young Scientists)	1
30	Regulations on DPGE (departments)	1
31	Regulations on ongoing monitoring of the progress of interim and end-of-course attestation of students	1
32	Regulations on the development and approval of EP	1
33	RULES FOR ADMISSION TO RESIDENCY FOR 2022 – 2025 ACADEMIC YEAR	1
34	CEP Order	1
35	Order on the creation of an appeal commission	1
36	Order on employment of a resident	1
37	Order on employment of a resident	1
38	SC Protocols Internal Regulatory Documents on Education	1
39	Protocol of DPGE dated 20.06.23	1
40	Protocol of DPGE dated 27.06.23	1
41	SC Mission Protocol	1
42	SC EP Protocol	1
43	Review of the EP “Pulmonology, adult, pediatric”	1
44	Review of EP “Therapy”	1
45	Certificate in pedagogy Mashkunova O.V.	1

46	SOP on the development and approval of a system for assessing educational achievements	1
47	SOP Rules for ongoing monitoring of student progress	1
48	SOP Rules for ongoing monitoring of student progress (1)	1
49	Strategic indicators 2022-2026	1
50	SC protocol No.3 dated 28.03.2023	1
51	SC protocol No.5 dated 24.05.2023	1
52	Eureka Press Treaty Library	1
53	Teacher Code of Ethics	1
54	https://cloud.mail.ru/public/9Qqv/joiwD94ai	