

To Accreditation Council
Of the Eurasian Centre for Accreditation
and quality assurance in Higher education
and Health care

May 30, 2021

**REPORT
OF THE EXTERNAL EXPERT COMMISSION
ON THE RESULTS OF THE ASSESSMENT OF THE EDUCATIONAL PROGRAMME
7R01118 - "CARDIAC SURGERY, INCLUDING CHILDREN'S" OF
SFENDIYAROV KAZAKH NATIONAL MEDICAL UNIVERSITY " FOR COMPLIANCE
WITH STANDARDS FOR ACCREDITATION OF POSTGRADUATE EDUCATION
PROGRAMMES (RESIDENCE SPECIALTIES) IN MEDICAL EDUCATION
ORGANIZATIONS**

period of external expert evaluation: 26.05.-28.05.2021

Almaty, 2021

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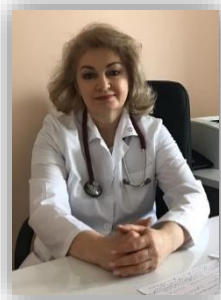
LIST OF SYMBOLS AND ABBREVIATIONS:

GPA	Weighted average assessment level of educational achievements of a student in the chosen specialty
ECTS	European Credit Transfer and Accumulation System
PBL	Problem-based learning
TBL	Team-Oriented Learning
AIS - NJSC "KazNMU"	Automated information system of KazNMU
AC KazNMU	Academic Council of KazNMU
JSC RIC&IM	Joint Stock Company "Research Institute of Cardiology and Internal Medicine"
AMP	Administrative and management personnel
BD (O)	Basic disciplines (training)
GD	General doctor
University	Higher educational institution
SAC	State Attestation Commission
Civil Defense and Emergencies	Civil defense and emergencies
SCES	State compulsory education standard
DAD	Department of Academic Development
DS&HR	Department of Science and Human Resources
DET	Distance educational technologies
DEMW	Department of educational and methodical work
ECAQA	Eurasian Centre for Accreditation and Quality Assurance in Higher Education and Health care
FSA	Final state certification
IPE	Institute of Postgraduate Education
IEW	Individual educational work (resident)
KRIOR	Kazakh Research Institute of Oncology and Radiology
CVI	Coronavirus infection
COC	Component of choice
CEP	Committee for educational programmes
QED	Catalog of elective disciplines
CEL	Clinical and experimental laboratory
MoH RK	Ministry of Health of the Republic of Kazakhstan
MES RK	Ministry of Education and Science of the Republic of Kazakhstan
MEO	Medical education organization
MJ RK	Ministry of Justice of the Republic of Kazakhstan
IAAR	Independent Agency for Accreditation and Rating
NJSC "KazNMU"	Non-profit joint-stock company "Asfendiyarov Kazakh National Medical University"
Research Institute FAM	Research Institute of Fundamental and Applied Medicine named after B. Atchabarov
RWR	Research work of a resident
IQAA	Independent Kazakh Agency for Quality Assurance in Higher Education
SSC	Scientific student circle
STP	Scientific and technical programme

NCIE	National Centre for Independent Examination
SC	Science Centre
SCS	Scientific Centre of Surgery
SCOGP	Scientific Centre for Obstetrics, Gynecology and Perinatology
SCP&PS	Scientific Centre for Pediatrics and Pediatric Surgery
PO	Public organization
EP	Educational programme
DP&CEP	Department of planning and control of the educational process
OSCE	Objective structured clinical examination
IC	Intermediate certification
MG	Major disciplines (training)
PHC	Primary health care
NCDMP	Noncommunicable Disease Management Programme
RSE on REM	Republican state enterprise on the right of economic management
WC	Working curricula
QMS	Quality Management System
SOP	Standard operating procedures
IWR	Independent work of residents
SC	Simulation centre
IWRST	Independent work of a resident under the supervision of a teacher
TC	Typical curriculum
ERWR	Educational and research work of residents
EMA	Educational-methodical association
UC	University clinic
AC	Academic Council
CCU	Centre of collective usage
GCV	Graduate Career Centre
STE	School of teaching excellence

1. Composition of the External Expert Commission

In accordance with ECAQA Order No. 19 dated April 26, 2021, an External Expert Commission was formed to conduct institutional accreditation and accreditation of educational programmes for specialties of KazNMU residency during May 26-28, 2021, in the following composition:



Chairperson of the External Expert Commission

MORENKO MARINA ALEKSEEVNA,
Doctor of Medical Sciences, Professor, Head of the Department of Children's Diseases with courses of allergology, immunology, hematology and endocrinology
NJSC "Astana Medical University"

Vice President of the Association of Allergists and Clinical Immunologists of the Republic of Kazakhstan, Member of the Union of Pediatricians of Russia

Foreign expert (online)

NASYROV RUSLAN ABDULLAEVICH,
Doctor of Medical Sciences Professor,
Vice-rector for scientific work,
Head of the Department of Pathological Anatomy with the course of forensic medicine
St. Petersburg State Pediatric Medical University of the Ministry of Health of the Russian Federation, Member of the New York Academy of Sciences



Foreign expert

RYZHKIN SERGEY ALEXANDROVICH
Doctor of Medical Sciences, Deputy Director of the Russian Medical Academy of Continuous Development (Moscow), Associate Professor of the Department of Radiation Diagnostics, Head of the Department of Additional Professional Education of the Kazan State Medical Academy, accredited expert of the Federal Service for Supervision in Education and Science (Rosobrnadzor).



National academic expert

DZHANDAIEV SERIK ZHAKENOVICH,
Doctor of Medical Sciences,
Professor Department of Otorhinolaryngology
NJSC "Astana Medical University"
Academician of the "International Academy of Head and Neck Surgery"





National academic expert

LIGAY ZOYA NIKOLAEVNA,
Doctor of Medical Sciences,
head of the department of general medical
practice with a course of medical care
NJSC "Kazakh-Russian Medical University"



National academic expert

MADYAROV VALENTIN
MANARBEOVICH,
Doctor of Medical Sciences, Head of the
Department of Surgery with a course of
anesthesiology and resuscitation, NJSC
"Kazakh-Russian Medical University"



National academic expert

ZHANALINA BAHYT SEKERBEKOVNA,
Doctor of Medical Sciences, Professor of the
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NJSC "West Kazakhstan Medical University
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Excellence in Health care of the Republic of
Kazakhstan



National academic expert

JUMALINA AKMARAL KANASHEVNA,
Doctor of Medical Sciences, Professor, Head of
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"



National academic expert

KUDABAEVA KHATIMIA ILYASOVNA,
Candidate of Medical Sciences, Professor
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National academic expert

ABDULLINA VENERA RAVILEVNA,
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National academic expert

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National academic expert

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National academic expert

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Almaty



National academic expert

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PhD in Medicine,
Associate Professor of the Department of
Internal Medicine Head of the educational
programme of residency in the specialty
"Nephrology, including adult» of NJSC Medical
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National academic expert

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National academic expert

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NJSC "Semey Medical University"



Expert -employers' representative

SERGEEVA ELENA NIKOLAEVNA,
Master in Public Health,
cardiologist of the highest category,
Head of the Department of the City Cardiological
Centre in Almaty.



Expert - resident representative

ABBASOVA DIANA,
resident of the first year of study in the specialty
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NJSC "Kazakh-Russian Medical University"



Expert -resident representative (online)

ILYASOV ELDAR RASHITOVICH,
resident of the first year of study in the specialty
"Oncology" of the Pavlodar branch of the NJSC
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ECAQA Observer

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

The EEC report contains an assessment of the educational programme of residency in the specialty 7R01118 - "Cardiac surgery, including children's" of KazNMU for compliance with the Accreditation Standards programmes of postgraduate education (specialty residency) of medical educational institutions of ECAQA, recommendations of the EEC on the further improvement of the

educational activities of KazNMU in the field of postgraduate education.

2. General part of the final report of the EEC

2.1 Presentation of the NJSC "Asfendiyarov Kazakh National Medical University "(KazNMU) and the educational residency programme in the specialty7R01118 - "Cardiac surgery, including children's"

Since 2018, KazNMU has been reorganized into a non-profit joint-stock company (NJSC) in accordance with the decree of the Government of the Republic of Kazakhstan (dated 5.04.2018, No. 166) and received the status of a research university (decree of the Ministry of Health of the Republic of Kazakhstan dated 12.11.2018). KazNNMU conducts training of students on the basis of 106 Health care organizations, including 5 research centres affiliated with the university. There are also 4 university clinics: Aksai clinic, internal medicine clinic of KazNMU, professorial clinic of KazNMU, dental clinic.

The university successfully implements dual training with involvement in the development and implementation of educational programmes of employers and field training of interns and residents in the regions of the Republic of Kazakhstan, branches of KazNMU in Taldykorgan, Taraz and Kyzylorda and other regions of Kazakhstan.

The first admission to residency was held in 2008. The first issue of residents was carried out in 2010.

Currently, in accordance with the state license No. KZ74LAA00017008 of 09/19/2019, training is carried out in Kazakh, Russian and English at undergraduate and postgraduate levels of training in 44 specialties of residency.

In KazNMU from 2016 to 2020, 5422 people received postgraduate education, of which 719 people were residents.

Employment of residency graduates over the past 5 years is 100%.

The staff of the University is 2099 people. Of these, the teaching staff - 1283, incl. academicians - 9, doctors of sciences - 151, candidates of sciences - 401, doctors of PhD - 20. The teaching staff of KazNMU has a high scientific and pedagogical potential. The holders of the grant of the Ministry of Education and Science of the Republic of Kazakhstan "The best teacher of the Republic of Kazakhstan" are 17 university teachers.

In the international institutional rating ARES among Kazakhstani universities in 2020, KazNMU took the fourth place in the overall ranking of universities, and a leading position among medical universities of the republic.

According to the results of the rating assessment of medical universities, research institutes, scientific centres of the Republic of Kazakhstan, conducted by the Republican Centre for Health Development, in terms of scientific and innovative activities for 2019 and an assessment of the dynamics of rating indicators over the past three years, KazNMU took 1st place. In November 2019, KazNMU became the owner of the independent award "Leader in publication activity in the Web of Science Core Collection over the past 5 years among medical universities of the Republic of Kazakhstan" according to the international information and analytical platform Web of Science.

According to a social online survey, according to the information of the President of the Alliance of Students of Kazakhstan Ilyas Tustikbaev, NJSC KazNMU entered the TOP 10 best universities in Kazakhstan.

According to the results of the National Rating of the Best Universities of Kazakhstan -2019, conducted by the Independent Agency for Quality Assurance in Higher Education (IQAA), KazNMU took 1st place in the institutional rating in the category of medical universities. In the institutional rating of the IAAR in 2019, KazNMU took 2nd place in terms of demand.

In the published Webometrics Ranking of World Universities, which evaluates more than 30 thousand educational institutions around the world, KazNMU entered the four best sites in the country and in the 11 best sites in the world.

Currently, 40 educational programmes at 4 levels of education are accredited by the IAAR. Since 2018, KazNMU has a certificate of institutional accreditation for 5 years.

KazNMU is one of the founders of the Academic Demanding League, which aims to improve the quality of education by implementing and promoting the principles of academic honesty.

KazNMU is a member of the following international associations: **AMEE, Association Siberian Open University, UNAI.**

During the period of implementation of KazNMU, 124 agreements on cooperation with universities, medical and scientific organizations of 34 countries of the near and far abroad have been concluded.

For the period from the 2015-2016 academic year to the 2019-2020 academic year, 107 visiting professors were invited. External outgoing and incoming academic mobility for the reporting period amounted to 59 university employees and 172 residents.

KazNMU was visited by visiting professors from Turkey, Russia, Lithuania, Warsaw, Georgia, Ukraine, Belarus. Academic mobility of professors and teachers –16. Outgoing external academic mobility of residents - 22.

Within the framework of the Erasmus + programme in 2015 agreements were signed with European universities - Finland, Lithuania, Spain, Estonia. In 2020, KazNMU won 4 grants for projects: AccelEd, HARMONE, LMQS, FOR21, aimed at promoting the modernization and sustainable development of the education and training system.

The main educational, scientific and clinical structural unit of KazNMU, which coordinates training in residency is the dean's office of internship and residency, renamed from August 3, 2020 to the faculty of postgraduate education.

Total number of students in residency in 2019-2020 years is 304 residents, including in the specialty 7R01118 - "Cardiac surgery, including children's" 12 people. In 2019 and 2020 in the specialty 7R01118 - "Cardiac surgery, including children's" 4 and 3 residents were issued, respectively.

The total number of teachers involved in the educational process of residency in the above specialty is 3 people, among them Doctor of Medical Sciences - 0, Candidate of Medical Sciences - 2, Msc - 1...

2.2 Information on previous accreditation

Accreditation of the educational programme of residency in the specialty 7R01118 - "Cardiac surgery, including children's» of KazNMU was carried out in 2016 by the Accreditation Body of the IAAR.

2.3 Analysis of the report on self-assessment of the educational programme of residency in the specialty 7R01118 - "Cardiac surgery, including pediatric"

Preparation for specialized accreditation of KazNMU was carried out on the basis of order No. 91 dated February 26, 2021 "On approval of the composition of the working group for preparation for self-assessment of educational programmes of KazNMU residency"

Self-assessment report educational programme presented on 126 pages of the main text, as well as applications on 116-126 pages, 16 applications in PDF format, electronic versions of documents via a link in googledisk <https://drive.google.com/drive/folders/1FjbOSq-JcHvquVn42DkTdJ5p-VCFLmbb?usp=sharing>; educational programme, state educational standard, assessment sheets, syllables, applications presented in the self-assessment report, data on the final certification of residents.

The report is characterized by answers to the criteria for each of the 9 accreditation standards, structuredness, taking into account the recommendations of the ECAQA Self-Assessment Guidelines for educational programmes, as well as internal consistency of information.

The report is accompanied by an accompanying letter signed by the rector T.S. Nurgozhin, confirming the accuracy of the information and data contained in the report.

The report contains information about the representative of the NCIE responsible for the self-assessment of educational programmes - A.N.Baimakhanov, Dean of the Faculty of Postgraduate Education.

The working group on the preparation of the self-assessment report has done a certain amount of work: the content of the accredited educational programme, the conditions for its implementation, staffing, educational resources, dynamics of development since the date of the previous accreditation in 2016 have been collected, the necessary information has been collected in accordance with the Accreditation Standards for Postgraduate Education Programmes (specialties of residency) of medical educational institutions of ECAQA (hereinafter referred to as accreditation standards); analysis, updating of methodological and educational materials, relevant documents on residency (regulations, rules), their content is reflected in the report. The content of the Self-Assessment Report is structured in accordance with the ECAQA Accreditation Standards.

The self-assessment report contains reasoned data, examples of the implementation of the objectives of the educational programme, the assessment of residents, national and international events, methodological support, confirming compliance with the requirements of accreditation standards. Self-assessment report description is fairly completed and updated in terms of the number of residents, teachers, administration, information about the selection and admission, the results of training, the results of the assessment of knowledge and skills, the material and technical base of the university and clinical bases, contractual obligations with partners (medical organizations, practice bases, universities), financial information, plans for development and improvement, etc. During the review, some comments were revealed.

In standard 1:

- *within the framework of Standard 1.1.5, it is necessary to clarify: to what quarantine measures are carried out during training at the university and at clinical sites?*

- *within the framework of Standard 1.1.7, it is necessary to clarify how many publications residents have, of which how many - VAK, Thomson Reuters, etc.*

In standard 2:

- *within the framework of Standard 2.2.1, it is necessary to clarify how many publications the residents have, of which how many are VAK, Thomson Reuters, etc., is there any participation in scientific projects, research, speaking at conferences of international, republican significance?*

In standard 3:

1. Within the framework of Standard 3.1.6. how many faculty members were trained in School of pedagogical skills named after Kh.S. Nasybullin? How much did the teaching efficiency increase after completing the course? Was the analysis carried out and what are the results?

In standard 5:

- *within the framework of Standard 5.2.2. How is the professional and pedagogical professional development programme for clinical mentors implemented?*

- *within the framework of Standard 5.2.4, how is a differentiated approach to assessing the performance of teaching staff carried out?*

- *within the framework of Standard 5.2.1, what are the performance indicators for which additional remuneration is applied?*

- *within the framework of Standard 5.2.1, is additional payment for treatment activities at the university clinic taken into account?*

- *within the framework of Standard 5.2.1, how many faculty members have publications in journals with an IF higher than 1.0, academic mobility in foreign countries?*

In standard 6:

- *within the framework of Standard 6.6.2, further clarify the number of teaching staff in the specialty 7R01118 - "Cardiac surgery, including pediatric", passed the PC with the purpose of developing the skills of expert assessment of the residency educational programme.*

Conclusion on each of the 9 accreditation standards includes a description of the strengths and areas for improvement identified in the course of introspection and development prospects for the specialty.

Thus, the self-assessment report of the accredited educational residency programme of KazNMU contains objective, detailed, structured information on all types of activities in accordance with the ECAQA accreditation standards, and the university made the appropriate corrections in the report at

the expert evaluation stage. The answers to the above questions were presented during the accreditation process.

3. Description of external expert evaluation

External expert work on the evaluation of the educational programme residency in the specialty 7R01118 - "Cardiac surgery, including children's" was organized in accordance with the Guidelines for the external assessment of educational organizations and educational programmes of ECAQA (approved by order of the Director General of the "Eurasian Centre for Accreditation and Quality Assurance in Higher Education and Health care" No. 5 dated 17.02 .2017) and according to the programme and schedule approved on May 11, 2021 by the Director general of ECAQA Sarsenbayeva S.S. and agreed with the rector prof. Nurgozhin T.S.

To obtain objective information on the expert assessment of the accredited educational programme, the members of the EEC used the following methods: interviews with management and administrative staff, interviews with residents and teachers, observation, studying the website, interviewing employees of various structural units, questioning teachers and residents, reviewing resources with a visit to clinical bases in the context of fulfilling accreditation standards, attending practical (seminar) classes of residents, including online in a pandemic, studying regulatory and educational documents both before a visit to KazNMU and during a visit.

On the part of the university staff, the presence of all persons indicated in the visit programme and according to the lists of interview sites is ensured (Table 1).

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

No.	FULL NAME.	Position
1.	Baydildinova Clara Zhenisovna	Vice-rector for academic affairs
2.	Baimakhanov Abylai Niyatovich	Dean of the Faculty of Postgraduate Education
3.	Tusupbekova Sandugash Kairatovna	Head of the Department of Academic Affairs
4.	Kulzhakhanova Samal Sanatovna	Head of the Alumni Career Centre
5.	Nagasbekova Bayan Serikkanovna	Human Resource Manager
6.	Sapakova Madina Mukhtarovna	Head of HR Department
7.	Tulepbaeva Gulzhan Sovetovna	Head of Clinical Department
8.	Nurmakhanova Zhanat Makhmutovna	Chairperson of the CEP (residency) (former)
9.	Ensegenova Zoya Zharbulatovna	Chairperson of the CEP (residency) (currently)
10.	Syzdykova Aigul Temirbulatovna	Deputy CFO
11.	Resident angiologists, resident cardiac surgeons (online)	In the amount of 23 people
12.	Modovov Nurbol Alimbaevich	Library manager
13.	Saliev Timur Muydinovich	Head of Research Institute of Physics and Mathematics named after Atchabarov SRIFM
14.	Balmukhanova Aigul Vladimirovna	Deputy Head of the Atchabarov SRIFM Research Institute of Physics and Mathematics
15.	Employers, Health care practitioners (online)	In the amount of 16 people
16.	Talkimbaeva Naylya Anuarovna	Head of the Simulation Centre
17.	Teachers (online)	In the amount of 20 people
18.	Kalenova Bakytgul Sovetovna	Head of Digitalization Department
19.	Botabekov Nurbolat Koybagarovich	Head of Remote Technology Department
20.	Residency graduates (online)	In the amount of 10 people
21.	Askarov Elnur Askarovich	Head of the Youth Policy Department

The sequence of the visit during May 26-28, 2021 is detailed in the Visit Programme, which is located in the documentation of the accreditation centre and in the Attachment to this report.

Vice-rector for academic activities Bayldinova K. Zh. Presented EEC and provided information on the purpose of the visit. During the interview, information was received on confirming the compliance of the mission of the educational programme of residency and the mission of the university, the vice-rector presented further strategic development and improvement of educational programmes, taking into account the real need of practical health care in personnel and the main points of the quality of education.

Meeting with the Dean of the Faculty of Postgraduate Education Baimakhanov A.N. and Director of the Department for Academic Work Tusupbekova S.K. allowed experts to find out the main directions of internal quality assurance policies in postgraduate education in the context of ESG. To search for evidence of compliance with standard 4, experts asked questions about the current status of a resident in accordance with the Health Code of the Republic of Kazakhstan. The following tasks of the dean's office were also analyzed - the formation of a state order for specialties, the reception of residents, the provision of resources, the assessment of educational programmes of residency in close cooperation with the departments of the university. The resources of the educational residency programme are provided by cooperation with such a foreign partner as Lithuanian University of Health Sciences((LSMU)... From a conversation with the dean, it was determined that residents work in clinics in compliance with security measures. At some bases, for example, JSC " National Scientific Center of Surgery named after A.N. Syzganov", as a permit to work, residents are required to pass a test exam on safety precautions.

When interviewing the head of the Graduate Career Center Kulzhakhanova S.S, experts assessed approaches to implementation of monitoring the employment of residents. In general, the employment rate of graduates is 100%, but there is a need to monitor this indicator over the next years.

Interview with the head of the human development department **resources** Nagasbekova B.S. and the head of the personnel management department Sapakova M.M. included obtaining information on providing the staff of the department of residency, compliance with qualification requirements for teaching staff. Implemented a programme for the development of teachers and mentors, which is carried out on an ongoing basis and contributes to their retention in the organization of education. The policy of recruiting mentors, the system of motivation of teaching staff and mentors used in the university and its results have been analyzed. At the Department of Cardiovascular Surgery, resident mentors have the highest categories. When conducting a survey of the mentors of the Mediterra medical centre (Gorny Gigant microdistrict, Zhamakaev st., 254/1), the mentors noted a positive characteristic of the practical activities of resident cardiac surgeons.

Supervisor Department of Clinical Work Tulepbaeva G.S. reported to the experts on provision of resources for the clinical practice of residents, about cooperation with clinical bases.

An interview with the chairperson of the committees of educational programmes Zh.M. Nurmakhanova and Ensegenova Z.Zh. During the meeting, the following points were discussed: planning, the procedure for developing and approving educational programmes, an algorithm for monitoring the quality of the implementation of educational programmes of residency, the introduction and approval of innovative teaching technologies on the CEP, final certification programmes with a discussion of the main stations of the OSCE for each department, depending on the specialty. Experts have given recommendations on simplifying the scheme for approving educational programmes.

Interviews with residents were held, while the EEC was divided into 5 subgroups for a more detailed clarification of issues related to training, resources and training methods. In total, 55-60 residents attended the interview, of which the program 7R01118 "Cardiac surgery, including children's" - 10 people...

Interview with 13 resident angiosurgeons, students on an accredited educational programme took place in an online format, nevertheless, they managed to get answers to the following questions:

- *Do you know the mission of the University?*
- *Is there enough audience?*

- *Is the schedule convenient?*
- *Are the classes taught in accordance with innovative technologies (PBL, CBL, TBL and etc)?*

Which of the above methods is better for assimilating theoretical material?

- *Do you work as a staff member at the clinic?*
- *What practical skills do you have?*
- *Does the library fund of the university satisfy?*
- *What are the living conditions?*
- *Are there any publications?*
- *Are classes held at the Simulation Centre? How often?*

Conclusions: in general, there is a positive attitude of residents to the learning process in residency. By the end of the training, each resident has a scientific publication (although not everyone has information about what kind of journal - Thomson Reuters, Scopus etc.). Classes in the simulation centre are held in the first year of study. As for the library fund, there is no necessary literature in full. Experts asked questions about satisfaction with training at KazNMU, sufficient time for supervising patients, work in Damumed with medical documentation, satisfaction with teaching methods and qualifications of teachers, social and moral support for residents in need of this, availability of international databases of professional literature by the resource. In general, the residents are satisfied with the training, assessment methods and purposefully entered this organization, since they believe that KazNMU has good educational resources, image and international connections.

Residents showed their commitment to the organization of education, were active in answering questions from external experts, demonstrated their point of view on organizing training, assessing their skills, consulting support, opportunities to participate in research and development, and funding.

Interview with the head of the library N.A. Modovov allowed us to estimate provision of the residency programme with educational, methodological and scientific literature, including electronic forms. So, for accredited and other programmes, there is access to the following international databases:

- Web of Science - webofknowledge.com
- Elsevier - Science direct - sciencedirect.com
- Scopus - scopus.com
- Cochrane Library
- DynaMedPlus
- MEDLINE Complete
- eBook Clinical Collection
- RMEB - rmeb.kz
- Database "Epigraph"

The above resources provide an opportunity for residents and teachers to participate in R&D and other research activities.

Interview with the manager of SRIFM Saliev Timur Muydinovich and deputy Balmukhanova Aigul Vladimirovna allowed the experts to learn about the scientific directions of the university, the system of motivation and participation in R&D of teachers of the departments of residency and residents, about the organization of R&D by residents on practice bases, the possibility of publishing R&D results of residents and teachers in journals, including university journals.

One of the important tools for accreditation expertise is the conduct and the **interviews with employers - representatives of practical health care**, which are not affiliated with KazNMU. A total of 16 people were interviewed, including 1 representative for angiosurgery and cardiac surgery. During the interview process, it was possible to establish a positive attitude of employers towards residents in general, but some problems remain: a shortage of personnel, especially in regional centres. A proposal was made to amend the educational programme for compulsory internship outside the city of Almaty. The employer in the specialty 7R01118 - "Cardiac surgery, including children's" was Surashev N.S., Director of the Regional Cardiology Centre of the Almaty region. Nursan Surashevich noted the high preparedness of resident cardiac surgeons, great practical assistance during a pandemic. The employer actively participated in the development of the educational programme.

Interviews with 16 employers on all KazNMU residency programmes declared for accreditation were conducted online and included such questions as: knowledge of the university's mission, participation in the development of the mission and proposals in the strategic plan, participation in the deliberative bodies of KazNMU, satisfaction with the basic knowledge and skills of residents, participation in training residents 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, 100% employment of residency graduates, etc.

Thus, during the first day of the visit, the expert validated the data of the self-assessment report of the educational programme according to standards 1,4,7,8 and partially 6.

The second day of the visit is May 27, 2021.

In order to assess the resources that ensure the effective implementation of the educational programme, the expert visited the Mediterra medical centre (Gorny Gigant microdistrict, Zhamakaeva st., 254/1), which provides round-the-clock highly qualified emergency consultative and diagnostic and inpatient medical care for adults and children. In the structure of the Centre, the department of angiosurgery for 65 beds, the head of the profile is N.A. Kospanov, the department of cardiology and cardiac surgery for 53 beds, of which 16 beds are adult cardiac surgery, 7 beds are pediatric cardiac surgery, 30 beds are cardiology, the head is K.Kuatbekov. N. The tour was carried out jointly with the head of the Department of Cardiovascular Surgery, Candidate of Medical Sciences, Associate Professor Kudasbaev Almat Turysbekovich.

Residents at the clinical base from the first days are involved in clinical activities, participate in all activities, including duty, consultations, clinical reviews. Resident cardiac surgeons have the opportunity to combine their studies with work in the clinic.

A review of resources showed that the university's clinical base for the implementation of an accredited educational programme is available for review at the time of an external visit, meets the goals and objectives, since it has a sufficient number of thematic patients, modern equipment and demonstrates accessibility to students, and employees who simultaneously perform the role of teachers and curators (mentors), provide quality teaching in an ethical and deontological manner.

The expert studied the documentation on the educational programme **7R01118 - "Cardiac surgery, including children's"** link <https://drive.google.com/drive/folders/1FjbOSq-JcHvquVn42DkTdJ5p-VCFLmbb?usp=sharing>; which confirmed the compliance with accreditation standards, including documentation of 7 teachers and 2 mentors of resident angiosurgeons. Documentation confirms compliance with accreditation standards (nomenclature of the department's affairs, plan for 5 years, annual plan and report of departments, journal of residents' progress, EMCD, feedback questionnaires with residents, teachers, reports on the results of questionnaires and measures taken, code of ethics, etc., control -measuring tools), including documentation (Regulations on residency, Rules for admission to residency, educational programme, syllables, checklists).

The expert studied the documents of residents (portfolio, results of assessment of residents-checklists, results of a questionnaire survey of residents, scientific publications).

Interviews were conducted with 6 out of 12 resident angiosurgeons who were at this clinical base in order to validate the fulfillment of the self-assessment report data and obtain evidence about the quality of the educational programme, the sufficiency of topical patients, time for maintaining medical records, and independent work of residents. The expert asked questions about satisfaction with studying at the university, sufficient time for practical training, supervision of patients, the possibility of independent invasive interventions under the supervision of mentors and work with medical records, as well as satisfaction with teaching methods and qualifications of teachers. In general, residents are satisfied with the training, assessment methods and purposefully entered this university, as they believe

The expert visit included a visit **simulation center of KazNMU**, located on Shevchenko street and equipped with 500 units. modern equipment. The area of the centre is over 2.7 thousand square meters. For the implementation of the residency programme in the specialty 7R01118 - "Cardiac surgery, including children's", the simulation centre has a simulation dummy for practicing

the practical skills of applying a surgical suture. In a conversation with the head of the simulation centre, Dr. med. Talkimbayeva Nayley Anuarovna found out that the residents' classes are held according to the schedule and the topics are integrated into the working curricula in the specialty 7R01118 - "Cardiac surgery, including children's".

Interview with teachers (20 people), as providers of the residency programme, showed that there are both successes and problems in the management of the educational programme, since the main developer of programmes and educational and methodological documentation is **Dean's office of postgraduate education**, and trainers are more involved in resident hands-on training and mentoring. In order to verify the data of Standard 5, external experts obtained information about personnel policy and approaches to the development of pedagogical competence of teachers, motivation to work with residents, and mentoring. The experts found that teachers initiate research topics for residents, stimulate the need for additional training and independent work with literature and medical documentation. In particular, the head of the educational programme in the specialty 7R01118 - "Cardiac surgery, including children's" Kodasbaev Almat Turysbekovich reported information on the scientific activities of resident cardiac surgeons, on the annual publication in peer-reviewed journals.

In order to validate the performance of the self-assessment report data and obtain evidence of the quality of the programmes, interviews were conducted with 10 residency graduates on the zoom platform. Graduates-residents of various specialties spoke about their achievements in practical activity, career opportunities. Many of them are in leadership positions. In general, the graduates were satisfied with their residency training - thanks to the knowledge and practical skills they received, working in the practical field of Health care, they were able to gain a certain authority and respect among colleagues and patients.

In order to assess compliance with Standard 6, the experts were shown a distance learning platform and showed how it is used in training residents. The main goal of the DC is to provide effective information and software support for the processes of the university, the sustainable functioning of the software and information technology environment using modern digital technologies to improve the quality of educational and other services provided by the university. The Department's activities are focused on developing and supporting advanced digital solutions that ensure higher efficiency and transparency of processes by increasing employee productivity and reducing administrative costs. Residents are guided in the AIS-KazNMU system in order to obtain the necessary information: discipline. By clicking on the "Personal card" button in the teacher's menu, a page with information about the teacher, which is taken from the profile, will open, and in addition there are three fields available for editing by the responsible, and the teachers themselves: the topic of scientific work, the schedule of consultations and additional information. This information is available to students during the choice of disciplines and teachers. On the site <https://kaznmu.kz/rus/instrukciYa-po-rabote-v-avtomatizirov/> instructions for working with the automated information system "AIS KazNMU" for students of KazNMU.

Further, a meeting of the EEC members was held on the results of an external assessment, and the experts came to the conclusion that during the second day of the visit, it was possible to find evidence of compliance with standards 2,3,6,7.

The third day of the visit - May 28, 2021

An online meeting was held with the head of the youth policy department, Askarov Elnur, and questions were asked about the participation of residents of the accredited programme in the volunteer movement, helping patients with COVID-19, and image work. In the course of the interviews, experts noted the insufficient participation of the Department of Youth Policy in the student life of residents. It was recommended to create a Council of Residents for each specialty to improve their educational, scientific and practical activities, in order to provide, if necessary, social and moral support during the period of study in residency.

Further, a final discussion of the results of the external assessment, study of documents, results of interviews, questionnaires was held. Generalizations of the results of the external assessment are made. The members of the EEC began to design the final report of the EEC. The expert

individually completed the “Quality profile and criteria for external evaluation of the educational programme of residency in the specialty 7R01118 -“Cardiac surgery, including pediatric surgery ”for compliance with the ECAQA Accreditation Standards.”

No comments were made by the EEC members. Recommendations for improving the postgraduate education sector in general and the department implementing the educational programme were discussed. A draft report with recommendations was prepared.

By the chairperson of the EEC prof. Morenko M.A. a final open vote was held on recommendations to improve the educational programme of residency 7R01118 - "Cardiac surgery, including pediatric surgery" and a final vote on recommendations for the ECAQA Accreditation Council - to accredit this programme for a period of 5 years. Then the chairperson of the EEC for the management and employees of the educational organization announced recommendations based on the results of an external assessment as part of the accreditation of educational programmes for residency specialties.

Results of the survey.

An observer from ECAQA on May 26, 2021 conducted an online survey of residents and teachers on the resource <https://webanketa.com/...>

On May 26, 2021, an observer from ECAQA conducted an online survey of residents of the Asfendiyarov Kazakh National Medical University (KazNMU) as part of the accreditation of educational programmes for residency specialties. The survey included 24 questions, allowing to draw conclusions about the respondents' attitude to the organization of the educational process and identify the existing problems.

Residents survey results:

The total number of responding residents - 200... Of these, 46.5% are residents of the 1st year of study, 33% are residents of the 2nd year of study, 15.5% are residents of the 3rd year of study and 5% are graduates of the KazNMU residency programme.

According to the results of the survey, 83% of respondents fully agree that they would recommend studying in this educational institution to their acquaintances, friends, relatives, partially agree - 15.5%, and completely disagree with this statement 1.5% (3 people). Fully agree with the statement that programme managers and teachers are aware of the problems of residents related to training, 83.5% of residents, 14% partially agree, 1% strongly disagree (2 people), 1.5% doubt the answer (3 people).

According to the survey results, 86.5% of respondents believe that programme managers and teachers constantly involve students in the work of advisory bodies (methodological council, academic council, committees of educational programmes), 4% answered that no, they do not involve, while 3.5% do not know about it, 3% doubt the answer, and 3% expressed the opinion that they are sometimes involved in this work.

78% of residents are fully satisfied with the conditions and equipment of classrooms, classrooms of this educational organization, partially - 14.5%, completely dissatisfied - 3.5%, partially dissatisfied - 3%.

81.5% of residents answered that they personally have access to equipment (educational and real) in order to master practical skills in their specialty, partially agree - 7%, 6.5% - partially disagree, while 2.5% doubt the answer and the same number of respondents completely disagree with this statement.

Fully 82.5% of residents were provided with the necessary educational literature, 13% answered that it was partially, while 2.5% believe that they were not provided with the necessary literature. 86% of respondents fully agree that teachers provided them with methodological and didactic materials, additional literature to prepare for classes, 10.5% - partially agree, 2% - completely disagree, 1.5% doubt the answer.

71.5% of residents confirmed that at this time they are engaged in scientific work under the guidance of their teacher or mentor, 13.5% have started planning the implementation of research, 11%

have not yet decided on the topic of research, 2.5% have no desire to engage in research, 1.5% doubt the answer.

73.5% of residents are completely and 20.5% are partially satisfied with the library fund of KazNMU, while 2.5% did not give an answer, 2% are partially dissatisfied, 1.5% are completely dissatisfied. According to the results of the survey, 83.5% of the respondents are completely satisfied with the organization of teaching, 14.5% - in part, 1.5% - are not satisfied.

87% of residents believe that there is sufficient time for practical training, 8% - partially agree with this statement, 2% - completely disagree, 1.5% - partially agree and the same number of people doubt the answer. The schedule of training sessions is fully satisfied with 85% of respondents, 14% - partially. 91.5% of residents are completely satisfied with the methods of assessing knowledge and skills, and 7.5% - partially.

Of all the respondents, 84% answered that teachers regularly use active and interactive teaching methods in the classroom, 12% expressed the opinion that such teaching methods are used only occasionally, and 1.5% believe that they are rarely, and the remaining 2.5% answered, that they doubt or do not know what it is.

According to the survey results, 88% answered that after the end of the class, the teacher constantly conducts feedback with them, 8.5% believe that sometimes, 1.5% answered that it is rare, and the remaining 1.5% have never encountered this.

When asked about the number of seminars held during the month within the EP residency, 71.5% answered that the seminars are held once a week, 18.5% answered that two or three times a week, 5.5% - held daily, 2.5% believe that it is very rare.

94% of residents are sure that this educational organization allows them to acquire the necessary knowledge and skills in their specialty, 3% are not sure about this, and 2% cannot yet answer this question. Of all the respondents, 76.5% give an excellent assessment of the organization of clinical training, 17.5% have a good impression, 3% cannot rate it yet, and 2% are not satisfied.

We completely agree that the teacher (mentor, curator) of this educational organization is an example for them as a professional doctor, a person, 91% of residents, 7.5% answered that not all teachers of this educational organization are an example, while 1% is completely do not agree.

89% of respondents are completely satisfied with the number of patients for supervision or assistance during operations, 8% - in part, 1.5% - completely dissatisfied.

The majority (86%) of respondents believe that the accreditation of an educational institution and educational programmes is an important and necessary mechanism for ensuring the quality of education in residency, 6% doubt the answer, 5.5% do not know what it is.

50% of residents believe that an interview with the university management is the most important tool for external expert evaluation, 46.5% chose the option "interview with teachers", 39.5% consider interviews with residents as such, 38% answered that interviews with mentors of residents, 29% - interviews with university graduates, 28.5% - an overview of the resource base for training residents, 25.5% - attending practical classes and seminars.

Conclusions: By their responses, residents generally expressed satisfaction with the organization of education in general, as well as with the conditions of training, access to equipment, time for practical training, the number of patients for supervision, and the organization of teaching.

Results of the survey of teachers of residency programmes:

The ECAQA observer, as part of the external assessment programme, conducted an online survey on May 26, which included 23 questions, which allowed drawing conclusions about the attitude of teachers to the organization of the educational process and identifying existing problems.

The total number of teachers on the list is 64, including those with up to 5 years of experience - 7.81%, up to 10 years - 20.31%, over 10 years - 71.88%.

Of all the respondents, they teach in the educational programme of the therapeutic profile - 48.44%, the surgical profile - 29.69%, the pediatric direction (including pediatric infections and neonatology) - 4.69%, the diagnostic direction (functional diagnostics, radiation diagnostics) - 4.69%, oncology, radiology, radiation therapy - 6.25%, dental profile - 6.25%.

Of all the respondents, 84.38% are full-time teachers, 6.25% are part-time teachers, 6.25% are not involved in teaching residents, 1.56% are mentors, 1.56% are not related to residency programmes.

84.38% are completely satisfied with the organization of the educational process, partially - 15.63%. According to the survey, 84.38% of teachers fully agree that ethics and subordination are observed in KazNMU, the remaining 15.63% believe that it is partially. 75% of respondents are fully satisfied with the organization of work and workplace, partially - 23.44%, and 1.56% (1 person) are completely not satisfied. The organization has an opportunity for career growth and development of competence for teachers: 75% fully agree, 25% partially.

70.31% of respondents fully agree that in this educational organization, teachers have the opportunity to engage in scientific work and publish the results of research, 28.13% - partially agree, and the remaining 1.56% (1 person) - completely disagree. According to the survey results, 46.88% of respondents are completely satisfied with the salary, 17.19% - More NO than YES, 15.63% - more YES than NO, 12.5% did not give an answer, 7.81% - completely dissatisfied.

70.31% confirmed that they personally participate in the development of teaching materials for the residency programme, 17.19% participate partially, 6.25% answered that they are provided with ready-made methodological developments, 4.69% doubt the answer.

64.06% of respondents studied at professional development courses from 1 to 5 years ago, 35.94% - during this year.

More than half of the respondents (51.56%) hold seminars with residents once a week, 15.63% - 2-3 times a week, 12.5% - daily, 7.81% - 1-2 times a month.

According to the survey results, 84.38% of teachers fully agree that they can be realized as professionals in their specialty in this educational organization, and 10.94% agree partially, 3.13% partially disagree.

76.56% of respondents fully agree that the organization has enough equipment and resources to conduct training for residents on accredited programmes, 20.31% - partially agree.

75% of respondents are fully satisfied with the work of the postgraduate education department, 20.31% are partially, the rest are not satisfied or have doubts about the answer. Regarding participation in conferences (international, republican), 29.69% did not contact the management on this matter, 26.56% did not give an answer, 18.75% answered that the organization supported their participation by paying for travel, travel expenses, registration fees, 7.81% answered that they no expenses are paid, 7.81% found sponsors, 6.25% are supported only by travel.

The majority of respondents (93.75%) fully agree that residents have free access to patients at clinical sites and all conditions for improving their practical skills, 6.25% - partially agree. The teachers answered that during the classes, they have a syllabus and a CDM (87.5%), control and measuring instruments (78.13%), cases (65.63%), an educational journal (54.69%), monographs (35.94%), a registration journal mining (20.31%).

The level of prior training of residents upon admission to training programmes is fully satisfied by 40.63% of respondents, partially - 51.56%, at the same time, 1.56% completely disagree with this, 6.25% did not give an answer.

57.81% know about the implementation of social programmes to support teachers, 29.69% do not know about it, 7.81% doubt the answer, 3.13% have already used it. Of all the respondents, 67.19% note that the organization's management systematically listens to the opinion of teachers in relation to issues on the educational process, research and development, clinical work, 26.56% believe that sometimes, 4.69% did not give an answer.

In the process of training residents, a variety of training methods are used, but more often the analysis of situational tasks (78.13%), the preparation and solution of cases (64.06%), work in small groups (64.06%), problem-oriented training (60.94%), interactive training (60.94%), oral questioning of students (54.69%), oral analysis of the topic (50%), solution of tests (43.75%), practical training in clinical skills in a clinical training centre (42.19%).

70.31% of the respondents fully agree that this survey is useful for developing recommendations for improving the key areas of activity of this organization, 15.63% partially agree with this, 12.5%

found it difficult to answer. Of all respondents, 67.19% believe that accreditation of educational programmes is an important and effective mechanism for ensuring the quality of postgraduate education, 28.13% did not understand what accreditation is, 23.44% expressed the opinion that it is, but in combination with other mechanisms (certification, audits, independent assessment of students' knowledge).

conclusions: The survey showed that the majority of the interviewed teachers are satisfied with the organization of the educational process, observance of ethics and subordination, organization of labor and workplace, the opportunity for career growth, the opportunity to engage in scientific work and publish the results of research.

Conclusion on the basis of the external evaluation:

Members of the EEC have carefully studied and assessed the main indicators of the accredited educational programme. The information received by the expert during the study of the self-assessment report, during the preparation of a written review with recommendations for improvement, during the implementation of the activities of the visit programme was analyzed at KazNMU from 26 to 28 May 2021. All the information received was compared with the data of the self-assessment report, the information was validated for each criterion of accreditation standards and the indicators of the Attachment to the self-assessment report were verified, which made it possible to ensure the reliability of the provided university information and confirming more than 18 documents for compliance with ECAQA Accreditation Standards.

Before visiting the organization by examining the attachments to the report provided by the postgraduate education department and access to googledisk <https://drive.google.com/drive/folders/1FjbOSq-JcHvquVn42DkTdJ5p-VCFLmbb?usp=sharing>, experts reviewed more than 16 documents, as well as during an external expert assessment by members of the EEC studied the main documents (mission, strategic plan for 2017-2021, teaching materials of disciplines, syllabuses, control and measuring instruments, checklists, portfolio of residents, individual plans of residents for 2019-2020, 2020-2021 academic year, publications of teachers, rules for admission to residency, personnel policy, the programme of the internal quality assurance system, resources for training were viewed directly at the clinical bases of departments (classrooms, office equipment available for residents to work with literature, patient documentation, educational and methodological literature), resources on residency on the website <https://kaznm.kz/>, which made it possible to identify the compliance of the educational organization with the basic accreditation standards.

During the external examination, it was found that the Rules for the training of medical personnel in residency were observed (order of the Minister of Health of the Republic of Kazakhstan dated September 18, 2018 No. KR DSM-16). The volume of the study load and treatment and prophylactic work by sections of the educational programme is determined by the individual work plan of the resident (clause 14) for one year and is monitored by monthly reports of the resident in an arbitrary form. The accounting of completed tasks is drawn up in the form of a portfolio according to the recommendations in the syllabus.

In connection with the new edition of order No. 647 On the approval of state compulsory standards and standard professional training programmes in medical and pharmaceutical specialties dated July 31, 2015 (as amended by the order of the Ministry of Health of the Republic of Kazakhstan dated 02.21.No. KR DSM-12/2020 Chapter 2. Requirements for the content of residency educational programmes with a focus on learning outcomes), there have been changes and additions in the educational programme in relation to the development of the research competence of residents, which must participate in the work of the research team.

In accordance with Article 222 of the Residency of Clause 4 of the Code of the Republic of Kazakhstan on People's Health and the Health care System No. 360-VI ZRK dated July 7, 2020, external experts studied the activities and conducted conversations with mentors of residents, and it was established that each resident was provided with a mentor. There are up to 4 residents per mentor.

The experts took into account the fact that the accredited educational programme in the specialty **7R01118 - "Cardiac surgery, including children's"** according to the current state educational standard, it is being implemented within 4 academic years, therefore, at this time there is no graduation of students, nevertheless, the entire educational, methodological, personnel and resource base has been assessed for compliance with accreditation standards. Through interviews with teachers and interviews with students, it was possible to determine their direct participation in the development, evaluation of educational programmes, decision-making on a number of key issues in the choice of clinical sites, topics of electives, participation in the appeal commissions for the admission and evaluation of residents, the development of the content of individual plans of residents and the selection of mentors.

Recommendations for improving activities in the field of implementation of the educational residency programme in the specialty **7R01118 - "Cardiac surgery, including children's"** for compliance with the Accreditation Standards, developed by the EEC based on the results of the expert assessment, were presented at a meeting with the management on May 28, 2021.

The programme of the 3-day visit (May 26-28, 2021) of the external expert assessment of the EEC was completed in full. On the part of the university staff, the participation of all persons indicated in the programme is ensured.

Thus, the external assessment and the visit of the EEC members made it possible to verify and validate the data of the self-assessment report of the residency programme in full in accordance with the Regulation on the External Expert Commission, the Guidelines for the external assessment of the medical organization ECAQA education.

For the work of the EEC, comfortable conditions were created, access to all necessary information and material resources of the accredited educational programme was organized. Experts note the high level of corporate culture and discipline of the employees of KazNMU responsible for the postgraduate education, the high degree of openness of the team in providing information to members of the EEC.

4. Analysis for compliance with accreditation standards based on the results of an external assessment of the educational residency programme in the specialty 7R01118 - "Cardiac surgery, including children's" and an overview of the strengths for each standard.

Standard 1: MISSION AND END OUTCOMES

Department of Cardiovascular Surgery, implementing an educational residency programme in the specialty **7R01118 - "Cardiac surgery, including children's"** took the mission of the university as the basis of the mission and informed the interested parties (teachers, employers, residents) about it in order to clearly understand the tasks and strive to meet the needs of practical Health care. The structure of the educational programme, where there is a dominance of practical training (75%), the sufficiency of clinical bases and a mentoring system, make it possible to strengthen the patient-centered approach in the care and treatment of patients. The university organized training and clinical practice in compliance with safety for all participants in the educational process (safety precautions, use of PPE, instructions before training).

Experts received convincing data that the university is autonomous in making decisions in the development of an educational programme in terms of the elective component, current and final assessment policies, including the choice of assessment methods (testing, oral questioning, clinical examination), selection and admission of residents (specialty exam) , personnel policy in relation to teachers for the accredited educational programme, as well as the allocation of resources (classroom fund of clinical bases according to contracts).

The EMCD defines the final learning outcomes in accordance with the qualification requirements for the residency specialty. The end results include knowledge, skills, the need for analysis, communication skills and continuous training of the resident - they constitute the core of the knowledge and skills of the cardiac surgeon. With its structure and teaching methods, the EP creates the need to keep abreast of modern trends in medicine, to use evidence-based medicine data for the

diagnosis and effective practice of internal diseases, thus developing the residents' skills for lifelong learning.

Practicing communication skills is carried out during rounds, consultations, debriefing of scenarios of clinical situations played with actors, 360-degree questioning of the resident, which also forms the skill of the resident's professional behavior with the patient, his entourage and colleagues.

The strategy of continuous improvement of knowledge and development of practical skills is supported by the need to certify a specialist every five years and maintain competitiveness in the emerging market of medical services.

The professionalism of residents is achieved due to the structure of the EP, which forms the entire set of competencies required for practice cardiac surgeon.

Thus, the compliance with the fulfillment of the basic criteria of the accreditation standard was established: the presence of a mission, strategic goals of the programme, participation in the development of the mission of stakeholders (employees, teachers, residents' assets), residents are informed about their final results from the first day of classes, provided with resources and practice-oriented educational programme. The effectiveness of the educational programme is evidenced by 100% employment.

Strengths:

1. The main focus of the educational programme is "patient-centered training" of residents, to achieve which residents are trained in multidisciplinary hospitals, research centres, with a sufficient number of patients with a variety of pathologies corresponding to the cycle of disciplines.
2. Availability of accredited and certified training and practice bases for residents.

Conclusions of the EEC on the criteria. Out of 17 standards conform: completely - 9 (7 - basic standards (BS); 2 - standards for improvement (IS), significantly - 8 (4 - BS; 4 - IS), partially - 0, do not correspond - 0.

Standard 1: completed

Recommendations for improvement identified during the external visit:

1. Active introduction of innovative technologies using feedback with inclusion in the portfolio of a resident.

Standard 2: EDUCATIONAL PROGRAMME

The accredited residency programme in the specialty 7R01118 - "Cardiac surgery, including pediatric surgery" is implemented in accordance with the State Compulsory Standards and Model Professional Curricula for Medical and Pharmaceutical Specialties dated July 31, 2015 (as amended by the order of the Ministry of Health of the Republic of Kazakhstan dated February 21, 2020 No. DSM-12/2020 Requirements for the content of residency educational programmes with a focus on learning outcomes). A lot of work is constantly being done to improve teaching materials, develop teaching staff and mentors of residents. A model of residents' competencies has been introduced in accordance with the qualification requirements for the specialty. The structure, content and duration of the programme are clearly defined. The mechanism for the development and approval of the residency programme is clearly spelled out and regulated by the CEP.

The ability for constant professional growth of a resident is reflected in the "Portfolio", which is formed from the moment of admission to the residency by the students personally. Persons who have completed training in the EP of residency and have successfully passed the final certification are awarded the qualification "cardiac surgeon" and a certificate is issued.

The staff of the departments has the necessary competencies to train residents. Every year, the department determines mentors who are doctors of the highest category, with extensive work experience. There are up to 4 residents per mentor. Faculty teachers use a variety of interactive and traditional teaching methods, according to which staff members are periodically trained for and within the university. Teaching methods - seminars, webinars, conferences, clinical case studies, problem-oriented training (PBL), case-based training (CBL), team-oriented training (TBL), clinical case

analysis, medical records, medical quality assessment care, case management, training in primary health care and hospital settings, medical conferences, consultations, clinical analyzes. The dean's office is trying to monitor this process and, through the School of Pedagogical Skills, train newly hired teachers.

Training of residents is carried out at clinical sites with personal participation in the treatment and diagnostic process, both in classroom time and during independent work.

Due to the availability of clinical bases for residents, they spend most of their study time in close contact with patients, medical records, including automated Health care systems. Mentors play a big role in this. During interviews with residents, experts made sure that the organization of training and work is patient-centered. During a pandemic, there is not always a sufficient number of thematic patients, therefore, cases of real patients are used, a theoretical analysis of complex topics is carried out and the study of literature in modern databases. Clinical training is carried out in an accredited clinic.

During the examination of the educational programme, it was found that the scientific foundations and methodology of medical research, evidence-based medicine are applied, training is carried out by curators, mentors.

Thus, the educational programme of residency in the specialty 7R01118 - "Cardiac surgery, including children's" demonstrates compliance with the basic criteria of the accreditation standard: a developed and approved educational programme that meets the requirements of the State Educational Standard and is implemented in a student-centered and patient-centered environment in certified clinics cities. The educational programme is provided with appropriate methodological documentation and documents accompanying residents. Teachers effectively apply various teaching methods, involve residents in research and development, which contributes to the formation and development of professional competencies in the specialty.

Strengths:

1. Highly qualified teaching staff using innovative teaching methods, mentoring system;
2. Flexibility in the implementation of the educational programme;
3. Taking into account the needs of practical health care in the development of electives;
4. Patient orientation and safety of the learning environment.

Conclusions of the EEC on the criteria. Out of 30 standards conform: completely - 19 (14 - basic standards (BS); 5 - standards for improvement (IS), significantly - 12 (8 - BS; 4 - IS), partially - 0, do not correspond - 0.

Standard 1: completed

Recommendations for improvement identified during the external visit: No

Standard 3: ASSESSMENT OF STUDENTS

KazNMU has developed and implemented a policy for assessing residents, which includes the principles and methods of assessment, which are reflected in the "Academic Policy of the University" (order No. 195 of 08/28/2019), Regulations on the current monitoring of progress, intermediate and final certification of students of the NJSC KazNMU. Responsibility for the implementation of the policy for assessing the educational achievements of residents is borne by the teaching staff of the departments, heads of departments, the office of the registrar.

The assessment of the educational achievements of residents covers the assessment of key competencies, and the assessment tools themselves are developed by the departments - control questions, tasks in test form (MCQ tasks with several options for correct answers), a list of practical skills, situational tasks, clinical situations. Information about the point-rating system of assessment is posted on the website www.kaznmu.kz.

As an additional method for assessing residents, the portfolio is used, which the expert got acquainted with at the departments supervising the residency programmes. Residents are engaged in

research work, which must necessarily end with the publication of a scientific article or a report at scientific and practical conferences. The assessment of scientific work also affects the overall assessment of the discipline.

The number of exams in each course is regulated by the Standard Curriculum, which is an integral part of the State Educational Standard of the Republic of Kazakhstan 2017, 2020. in the specialties of residency. The results of educational achievements of students are entered into an electronic educational journal through the office-registrar system and the AIS "Sirius" programme, which automatically generates examination sheets.

The possibility of an appeal based on the results of the interim and final certification of residents is determined in the "Academic Policy for the 2020-2021 academic year".

The procedure for planning, organizing, monitoring and analyzing assessment methods in KazNMU ensures the reliability and validity of these methods. The development of new control and measuring instruments is carried out by teachers through the study of world experience in assessing knowledge in residency, then it is introduced at the department.

Thus, this standard is generally implemented at the university.

Strengths:

1. Electronic system "Sirius", which ensures transparency and speed of registration of the results of the assessment of residents.
2. Assessment of the portfolio, which allows assessing the development of the resident's competencies: personal interest, professional competence, communicative, personal qualities, scientific interest.
3. The system of monitoring the educational achievements of residents is complex and is aimed at assessing the final learning outcomes.

Conclusions of the EEC on the criteria. Out of 11 standards conform: completely - 4 (2 - basic standards (BS); 2 - standards for improvement (IS), significantly - 7 (5 - BS; 2 - IS), partially - 0, do not correspond - 0.

Standard 3: completed

Recommendations for improvement identified during the external visit:

1. The resident's portfolio, reflecting his activities in the educational, scientific and practical direction, must be completed in full, including scientific publications, certificates of participation in various conferences, seminars, scorecards, etc.

Standard 4: STUDENTS

Admission to residency at KazNMU named after S. Asfendiyarov is carried out in accordance with the Order of the Ministry of Education and Science of the Republic of Kazakhstan "On Approval of the Model Rules for Admission to Training in Educational Institutions Implementing Educational Programmes of Higher and Postgraduate Education". The number of residents is determined based on clinical training opportunities as well as the needs of practical health care. The criteria for applicants entering the residency are determined by the requirements of the State Educational Standard of the Republic of Kazakhstan, according to which the previous level of education of persons wishing to master the educational programmes of residency: basic medical education, higher medical education, internship. Information on the required list of documents for admission to residency is posted on the KazNMU website, as well as in the selection committee.

The University has developed a document "Rules for admission to residency", on the basis of which the admission of residents is carried out.

The duration of the development of the educational residency programme in the specialty 7R01118 "Cardiac surgery, incl. children's " is 4 years old.

The number of residents is determined based on clinical training opportunities as well as the needs of practical Health care.

According to the educational programme 7R01118 "Cardiac surgery, incl. children's "in the 2015 academic year passed the first recruitment of applicants, which included residents under the state order in the amount of 4 listeners. To attract students in the specialty 7R01118 "Cardiac surgery, incl. children's " a banner was displayed on the territory of the University; in social networks - an announcement with information on the specialty, requirements for applicants; functional duties of a cardiac surgeon, characteristics of the bases where training will be carried out, and the teaching staff.

In the 2020-2021 academic year, 1 resident was recruited for the first year of study.

Strengths:

1. Participation of residents in all medical activities of clinical sites;
2. The possibility of implementing research competence;
3. High commitment and continuity of residency students to this university.

Conclusions of the EEC on the criteria. Out of 30 standards conform: completely - 14 (11 - basic standards (BS); 3 - standards for improvement (BS), significantly - 15 (8 - BS; 7 - IS), partially - 1 (0 - BS, 1 - IS) do not match - 0.

Standard 4: completed

Recommendations for improvement identified during the external visit:

1) *Actively involve residents in solving problem situations, in the activities of the Youth Policy Department.*

Standard 5: ACADEMIC STAFF / FACULTY

In Asfendiyarov KazNMU apply effective and open criteria for recruitment and appointment to teaching positions and guarantees equal employment opportunities consistent with legal requirements and any other selection criteria. The Department of Infectious and Tropical Diseases and Pediatric Infectious Diseases has a sufficient number of graduated highly qualified teachers who meet the needs of the mission and the successful implementation of the educational programme for residency 7R01118 - "Cardiac surgery, including children's".

The teaching staff is formed based on the needs for the effective implementation of educational programmes, as well as on the basis of the total volume of the study load. Clinical mentors from practical health care who are recruited to teach residents are required to have a basic education, a medical qualification category and sufficient experience in the specialty. The teaching staff of the department are constantly improving their qualifications in pedagogical and clinical areas.

Employees of the Department of Cardiovascular Surgery went through a cycle of advanced training on medical education in the Republic of Kazakhstan, countries of near and far abroad - Germany, Israel, Lithuania. For the passage of academic mobility of the teaching staff and residents, advanced training of the teaching staff of the department, memorandums were concluded with the following clinics in South Korea (Severance Hospital, Sejong Hospital, Samsung Medical Centre - South Korea, Seoul).

During the academic year, training seminars are systematically conducted for the teaching staff of the university on the organization of the educational process, methodological work, interactive teaching methods (TBL, PBL, CBL; "brain ring", case-study, "brainstorming", "visual organizers" and etc.). The teaching staff of the department and faculty develops and implements innovative teaching methods.

Strengths:

1. The faculty of the departments consists of highly qualified employees, experienced clinicians with scientific achievements, medical qualifications, who are experts in the field of practical health care and medical education.

Conclusions of the EEC on the criteria. Out of 7 standards conform: completely - 3 (2 - basic standards (BS); 1 - standards for improvement (IS), significantly - 4 (3 - BS; 3 - IS), partially - 0, do not correspond - 0.

Standard 5: completed

Recommendations for improvement identified during the external visit:

1) To intensify the work of teaching staff in the scientific direction (annual publications, monographs, teaching aids, development of certificates of intellectual property, etc.).

Standard 6: EDUCATIONAL RESOURCES

The University has a developed material and technical base for the implementation of professional training of residents in the specialty 7R01118 "Cardiac surgery, incl. children's ". The material and technical base of the university includes: lecture halls, study rooms, educational and research laboratories, a library, information technology facilities, premises for the cultural and social sphere, university clinics, clinical bases - leading medical clinics in Almaty.

The equipment of clinical bases contributes to the high-quality organization of the educational process and the provision of specialized and highly specialized inpatient and outpatient care to the population of the region. The classrooms are equipped with personal computers, multimedia installations, office equipment. For a number of years, the clinic has been carrying out a phased work aimed at solving the problems of ensuring the safety of patients, residents, and medical staff of the institution.

Strengths:

1. Sustainable material, technical and information base
2. The presence of highly specialized clinical bases, which are an important foundation for the implementation of the trinity in teaching residents - education, science and practice.

Conclusions of the EEC on the criteria. Out of 21 standards conform: completely - 10 (6 - basic standards (BS); 4 - standards for improvement (IS), significantly - 11 (4 - BS; 7 - IS), partially - 0, do not correspond - 0.

Standard 6: completed

Recommendations for improvement identified during the external visit: No

Standard 7: PROGRAMME EVALUATION

Monitoring and evaluation of EP is carried out at all levels of education, a multi-level approach is used, including profiling and related departments, the Internship and Residency Educational Programme Committee, DAR, the Academic Committee, the Senate, the student government, the Centre for the Admission and Career Guidance of Students (general monitoring of the quality of educational programmes through a survey of stakeholders (employers, professional associations and trainees)).

Independent monitoring of data on the implementation and achievement of learning outcomes (LO) is carried out by independent attestation of EP graduates through the National Centre for Independent Examination (NTSNE) and by questioning employers. This procedure is carried out annually, after which disciplines are introduced into the catalog of elective disciplines (CED), which make it possible to enhance the achievement of the expected final LO.

Strengths:

1. Involvement in the evaluation of educational programmes of students, teachers, employers;

2. External and internal assessment of the educational programme is carried out by leading specialists of the Republic of Kazakhstan in the field of cardiovascular surgery.

Conclusions of the EEC on the criteria. Out of 15 standards conform: completely - 1 (1 - basic standard (BS); 0 - improvement standard (IS), significantly - 14 (9 - BS; 5 - IS), partially - 0, do not correspond - 0.

Standard 7: completed

Recommendations for improvement identified during the external visit: No

Standard 8: GOVERNANCE AND ADMINISTRATION

KazNMU, in the implementation of postgraduate education, is guided by the Laws of the Republic of Kazakhstan "On Education", "On Approval of the State Educational Order for the Training of Specialists with Higher and Postgraduate Education", which regulate the amount of the state educational order for the training of residents in the field of Health care.

The assessment of residents and the achievement of the final results of training under the residency programme is carried out on the basis of the final state independent certification and is regulated by the "Regulations on current control, intermediate and final certification". An order of the rector is issued annually on the conduct of the FSA and the composition of the attestation commission. Thus, KazNMU implements the EP in residency in accordance with the regulatory legal acts approved by the MoH RK and the Government of the Republic of Kazakhstan, as well as the internal rules for organizing the educational process in residency.

The residency regulation was developed in accordance with the Law of the Republic of Kazakhstan "On Education", the Concept for the Development of Medical Education and determines the procedure for training medical personnel in residency in medical education and science organizations of the Republic of Kazakhstan, regardless of the form of ownership, having a license for this type of educational activity and clinical base.

Strengths:

1. Stable financial condition of the university;
2. Extensive collaboration with partners in the health sector.

Conclusions of the EEC on the criteria. Out of 15 standards conform: completely - 9 (7 - basic standard (BS); 2 - improvement standard (IS), significantly - 6 (1 - BS; 5 - IS), partially - 0, do not correspond - 0.

Standard 8: completed

Recommendations for improvement identified during the external visit: No

Standard 9: CONTINUOUS RENEWAL

KazNMU, in order to continuously improve the postgraduate educational process in accordance with the best practice of world educational management, taking into account the needs of practical Health care in the Republic of Kazakhstan, initiates a review and updating of the process. Based on the analysis of the documented review at all levels, resources are allocated and an action plan is determined to update the postgraduate educational process, improve management, update the goal of the strategic plan in terms of educational activities, structure and content, taking into account the needs of practical health care, ensure improved learning outcomes / competencies, learning environment programmes.

Strengths:

1. The University has a system of continuous improvement of the postgraduate educational process.

Conclusions of the EEC on the criteria. Out of 4 standards conform: completely - 1 (1 - basic standard (BS); 0 - improvement standard (IS), significantly - 3 (0 - BS; 3 - IS), partially - 0, do not correspond - 0.

Standard 9: completed

Recommendations for improvement identified during the external visit:

1. To strengthen the further development of academic mobility of the teaching staff and residents.

Thus, all 9 accreditation standards have been met, no inconsistencies in the fulfillment of the criteria of each of the basic accreditation standards in the process of analyzing the self-assessment report and conducting the examination as part of the tasks of the external expert evaluation programme were found.

5. Recommendations for improving educational residency in the specialty 7R01119 "Cardiac surgery, incl. children's ":

Standard 1

1. Active introduction of innovative technologies using feedback with inclusion in the portfolio of a resident

Standard 3

1. The resident's portfolio, reflecting his activities in the educational, scientific and practical direction, must be completed in full, including scientific publications, certificates of participation in various conferences, seminars, scorecards, etc.

Standard 4

1. Actively involve residents in solving problem situations, in the activities of the Department of Youth Policy.

Standard 5

1. To intensify the work of the teaching staff in the scientific direction (annual publications, monographs, teaching aids, development of certificates of intellectual property, etc.).

Standard 9

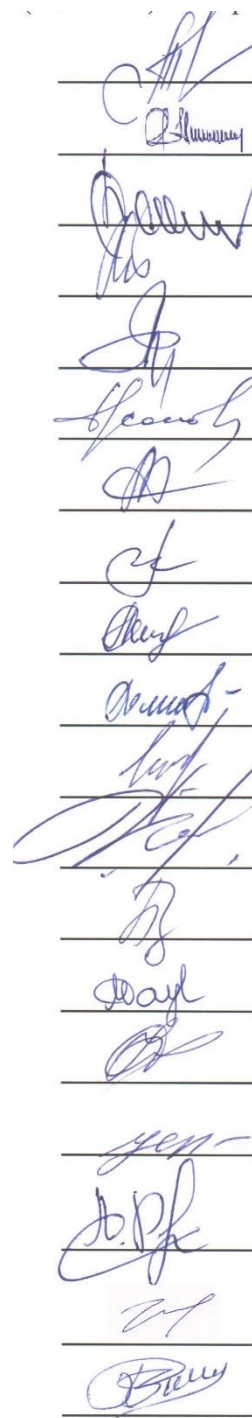
1. To strengthen the further development of academic mobility of the teaching staff and residents.

6. Recommendation to the ECAQA Accreditation Council

The members of the EEC came to a unanimous opinion to recommend to the Accreditation Council to accredit the educational residency program in the specialty 7R01118 "Cardiac surgery, incl. children's " of NJSC " Asfendiyarov KazNMU" for the period of 5 years.

Chairman of the EEC

Morenko Marina Alekseevna
Foreign expert
Ryzhkin Sergey Alexandrovich
Academic expert
Serik Zhakenovich Dzhandaev
Academic expert
Ligai Zoya Nikolaevna
Academic expert
Magyarov Valentin Manarbekovich
Academic expert
Zhanalina Bakhyt Sekerbekovna
Academic expert
Zhumalina Akmaral Kanashevna
Academic expert
Kudabaeva Khatimya Ilyasovna
Academic expert
Abdullina Venera Ravilevna
Academic expert
Igimbayeva Gauhar Tleubekkyzy
Academic expert
Kabildina Nailya Amirbekovna
Academic expert
Kusainova Faridat Azymovna
Academic expert
Bacheva Irina Viktorovna
Academic expert
Maukaeva Saule Boranbaevna
Academic expert
Ospanova Nargul Narimanovna
Expert - representative of employers
Sergeeva Elena Nikolaevna
Expert - representative of residents
Diana Abbasova
Expert - representative of residents
Ilyasov Eldar Rashitovich
ECAQA Observer
Sarsenbayeva Dariyabanu Bulatovna



The image shows a vertical list of 20 horizontal lines, each with a handwritten signature in blue ink. The signatures are written in a cursive style and correspond to the names listed on the left side of the page. The lines are evenly spaced and extend across the width of the page.

**Quality profile and external evaluation criteria (summary) of
educational programme in the specialty
7R01118 "Cardiac surgery, incl. children's " of NJSC " Asfendiyarov KazNMU"**

Standard	Criteria for evaluation Number of standards = BS * / IS	TOTAL	Grade			
			Totally coincides	Significantly corresponds	Partially compliant	Does not match
1.	MISSION AND END OUTCOMES	17	7/2	4/4		
2.	EDUCATIONAL PROGRAMME	31	14/5	8/4		
3.	ASSESSMENT OF STUDENTS	11	2/2	5/2		
4.	STUDENTS	30	11/3	8/7	0/1	
5.	ACADEMIC STAFF /FACULTY	7	2/2	3/1		
6.	EDUCATIONAL RESOURCES	21	6/4	4/7		
7.	PROGRAMME EVALUATION	15	1/0	9/5		
8	GOVERNANCE AND ADMINISTRATION	15	7/2	1/5		
9	CONTINUOUS RENEWAL	4	1/0	0/3		
	total	151	50/20	42/38	0/1	
		151	70	80	1	

List of documents studied by EEC members within the framework of accreditation

No.	Names of documents	Quantity	Date of approval (if applicable)
1.	Residency educational programme in the specialty 7R01118- "Cardiac surgery, including children's"	1	08/24/2020
2.	Acts of implementation in practical health care	1	-
3.	The act of introducing scientific achievements into health care practice	1	11.03.2019
4.	Information about the passage of the teaching staff of advanced training courses	1	
5.	Order on organizing interviews for applicants to residency	1	No. 364 dated 08.21.
6.	Appeals Panel List	1	No. 364 dated 08.21.
7.	Information about the passage of the teaching staff of advanced training courses	2	-
8.	Material and technical base	1	-
9.	Information about the university library	1	-
10.	A brief description of the social cult. base	1	-
11.	Characteristics of clinical sites	3	-
12.	Resident portfolio	15	-
13.	Self-assessment report	1	-
14.	Resident score sheets	-	-
15.	Memorandums with foreign clinics (South Korea, Seoul)	3	2015, 2016, 2017
16.	Individual plans of teachers of the department	2	-
17.	Scientific publications of residents	15	-
18.	Scientific publications of teaching staff	2	-
19.	Syllables	Over 30	-
20.	Control-measuring means	Over 30	-
21.			