

To Accreditation Council of  
the Eurasian Center for Accreditation and  
Quality Assurance in Higher Education  
and Health Care  
date 11.04.2022

**REPORT**  
**OF THE EXTERNAL EXPERT COMMISSION ON THE RESULTS OF THE**  
**EVALUATION OF THE EDUCATIONAL PROGRAMME OF**  
**"ANGIOSURGERY, INCLUDING CHILDREN'S" OF LLP "NATIONAL**  
**SCIENTIFIC ONCOLOGY CENTER"**  
**FOR COMPLIANCE WITH THE ACCREDITATION STANDARDS FOR**  
**POSTGRADUATE EDUCATION PROGRAMMES IN MEDICAL**  
**EDUCATIONAL INSTITUTIONS**

**external expert evaluation period: 29/03/2022 - 31/03/2022**

**Nur-Sultan, 2022**

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### List of symbols and abbreviations

Abbreviation	Designation
SCES	State compulsory standard of education
Dept.	Education Department of "National Scientific Oncological Center" LLP
DLT	Distance learning technologies
FA	final attestation
IEPI	Individual Educational Plan
NSOC	National Scientific Oncology Center
CED	Catalog of elective disciplines
MoH RK	Ministry of Health of the Republic of Kazakhstan
Ministry of Education and Science of the Republic	Ministry of Education and Science of the Republic of Kazakhstan
NSOTC	National Scientific Oncology and Transplantology Center
RSC EMC	Republican Scientific Center of Emergency Medical Care
PGE	postgraduate education
AT	AT – Advanced Training
PP	pre-preparation
TS	Teaching staff
EP	Educational Programmes
WEPI	Working educational plan
NCIE	national Independent Examination Centre
QMS	QMS – Quality Management System
IWRT	work of a resident doctor under the supervision of a clinical mentor during the period of clinical activity of a resident doctor
IWR	independent work of a resident doctor
EMC	educational and methodological council
GPA	Grade Point Average - the arithmetic mean of the grades obtained for all the courses, taking into account the time spent on them
JCI	Joint Commission International

### 1. Composition of the external expert commission

In accordance with the ECAQA Order No. 9 of March 11, 2022, an External Expert Commission (hereinafter referred to as the EEC) was formed to conduct an external evaluation of the residency educational programme in the specialty "Angiosurgery, including children's" in the period of 29/03/2022 – 31/03/2022 (date), as follows:

<b>order №</b>	<b>Status as part of EEC</b>	<b>Full name</b>	<b>Regalia, position, place of work/place of study, course, specialty</b>
1	chairperson	Madyarov Valentin Manarbekovich	doctor of Medical Sciences, Head of the Department of Surgery with a course of anesthesiology and resuscitation
2	Foreign Expert	SERGEY ALEXANDROVICH RYZHKIN	Doctor of Medical Sciences, Head of the Department of Radiotherapy and Radiology named after Academician A.S. Pavlov, Head of the Department of Additional Professional Education of the Russian Academy of Continuing Professional Development (Moscow), Scientific Secretary of the Department of Medical and Biological Sciences of the Academy of Sciences of the Republic of Tatarstan, accredited expert of the Federal Service for Supervision of Education and Science (Rosobrnadzor).
3	National Academic Expert	MUSTAFIN ALIBEK HAMZENOVICH,	Doctor of Medical Sciences, Professor, Head of the Department of Anesthesiology and Resuscitation of Internship, NJSC "Medical University of Astana"
4	National Academic Expert	UALIKHAN KOSHKARALIEVICH ZhUMASHEV	doctor of Medical Sciences, Professor of the Department of Oncology, NJSC "Asfendiyarov Kazakh National Medical University"
5	National Academic Expert	ESENKULOVA SAULE ASKEROVNA	doctor of Medical Sciences, Associate Professor of the Department NJSC "Asfendiyarov Kazakh National Medical University" Member of the Association of Oncologists of the Republic of Kazakhstan
6	National Academic Expert	TRYNKIN ALEXEY VIKTOROVICH	candidate of Medical Sciences, Senior Lecturer of the Department of Surgical Diseases with anesthesiology and resuscitation

			course
7	National Academic Expert (online)	SLAVKO ELENA ALEKSEEVNA	CMS – Candidate of Medical Sciences Candidate of Medical Sciences, Associate Professor of the Department of Infectious Diseases of the NEI "Kazakhstan-Russian Medical University", Chairperson of the NEI "Scientific and Practical Society of Gastroenterologists of Almaty"
8	National Academic Expert (online)	BAZARBAEVA AIGUL ABAEVNA	candidate of Medical Sciences, doctor of the highest qualification category in pediatrics, head of Science and Education Scientific Center of Pediatrics and Pediatric Surgery JSC, Distinctive Healthcare Person
9	National Academic Expert	Ulanbek ZHANBYRBEK KABLY,	M.D., Candidate of Medical Sciences, Associate Professor, Head of the Department of Urology and Andrology, Medical University of Astana JSC
10	Employers' representative	MADINA ERALYEVNA OSPAANOVA	Head of the Department of Cryobiology of the RSE on REM "Scientific and Production Center of Transfusiology" of the Ministry of Health of the Republic of Kazakhstan
11	Resident Representative	BAIMUKHANOV DAUREN SAMARKHANOVICH	resident of the 4th year of training in the specialty "Neurosurgery, including children's" JSC "National Center for Neurosurgery"

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

The work of the ECAQA was carried out in accordance with the Regulation on the ECAQA (Order of the Director General of ECAQA No. 11 dated March 11, 2022).

The EEC report contains an assessment of the Angiosurgery educational programme, including children's, for compliance with the Accreditation Standards of postgraduate education programmes (residency specialties) of medical educational organizations and conclusions (hereinafter referred to as Accreditation Standards), recommendations of the EEC on 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 educational programme in the specialty "Angiosurgery, including children's" LLP "National Scientific Oncology Center

Organization name, legal form of ownership, bin	"National Scientific Oncology Center" LLP BIN 180740003103
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Management body	The Society
Full name of the chief executive officer	Kulkaeva Gulnara Utepergenovna
Created in	Resolution of the Government of the Republic of Kazakhstan dated July 31, 2006 No.719 "On approval of the Plan for the creation of a cluster of medical services on the basis of new centers in Astana, as well as orders of the Ministry of Health of the Republic of Kazakhstan dated July 31, 2008 No.433 "On the establishment of a joint-stock company " of "Republican Scientific Center for Emergency Medical Care". On July 4, 2014, it was renamed the National Research Center for Oncology and Transpathology. In accordance with the Decree of the Government of the Republic of Kazakhstan dated May 11, 2018 No.255, the National Scientific Cancer Center LLP was established with 100% participation of the state.
Location and contact details	Nur-Sultan , Kerey st., Zhanibek khan, 3
State license for educational activities in the residency (date, number)	The RSCEMC issued a license for postgraduate education No. 0137410 series AB dated 02.06.2010.
Information on branches, subsidiaries (if any)	Not available
Year of implementation of the accredited educational programme (EP)	The residency programmes are implemented in accordance with the Rules for the organization of the educational process in the residence of the NSOC, approved by order of the Chairperson of the Board of the NSOC dated July 5, 2019 No.106-OD.
Duration of training	4 years
Total number of graduates since the beginning of EP implementation	16
Number of residents on EP since the beginning of the current year	The total number of residents in 2021-2022 was 70 resident doctors, including angiologists - 6 (4 years of training), 4 (3 years of training), 3 (2 years of training), 1 (1 year of training). That is, 14 residents are studying in the specialty of angioplasty.
Full-time trainers/ Combiners involved in the implementation of EP, incl. % of degree	In the educational process of residency and additional vocational training, there are 61 people, including Doctor of Medical Sciences-5, Candidate of Medical Sciences-18.PhD-2, Masters -13.

\* Notes: Elements of institutional autonomy have been introduced in the Center. Academic freedom implies the independence of the development and implementation of the EP, within the framework of the standard curricula, of the SCES (21.02.20). Freedom in drawing up the EP is achieved when describing the syllabuses, CED, IEP, WEPL, the form, structure and procedure for the development of which is determined by the organization independently. The EP is considered at the meetings of the PDO department and the Academic Council.

Assessment of academic achievements of residents is carried out by various forms of control, which are determined by the Center independently "Academic Policy 03.07.2021". Instrumentation, training methods, and monitoring of residents' achievements, approved at the meeting of the department, are subject to further review and approval by the SC. Specialty 7R01119 "Angioplasty,

including children's" - new, compiled in accordance with the requirements of the SCES (21.02.2020), entered into the Republican Register of Educational Programmes.

Admission of persons to the residency is carried out on a competitive basis on the basis of the results of the entrance examination. The admission commission is organized from the teaching staff of the NSOC with the participation of the administration. Persons who have scored at least 75 out of 100 on the examination are enrolled in the residency. Persons who scored the highest points on the exam (Order of the Minister of Health of the Republic of Kazakhstan dated December 15, 2020 No. KR DSM-270/2020. Registered in the Ministry of Justice of the Republic of Kazakhstan on December 15, 2020 No. 21802 "On approval of the rules for placing a state order, admission to education and training of medical personnel in the residency").

The selection/selection of teachers is carried out in accordance with the "Human Resources Management Programme of the National Scientific Oncology Center LLP" (order of the Chairperson of the Board of the NSOC dated 05.07.2019 No. 106-OD), personnel autonomy follows from the possibility of internal and external search for candidates for a vacant position. Internal search provides the ability to use the personnel reserve in the first place. The further multi-level system of selection of candidates contributes to the effective selection of personnel by professional, business, moral qualities using modern technologies. The NSOC has an EP that meets the requirements of the SCES (21.02.2020), is staffed with employees with clinical experience and scientific titles, training is carried out on the basis of the Scientific Center, where there are sufficient resources for training resident oncologists. Persons who have completed training in the educational programme of the residency and successfully passed the final certification are awarded the qualification "Angiosurgery including children's" in the relevant specialty of the residency and a certificate of completion of residency is issued.

The EP of the residence meets the international requirements and the 8th level of the national framework of qualifications in medical education and the Structure of qualifications in the European Higher Education Area.

Training of resident angiosurgeons is carried out at the Center with personal participation in the therapeutic and diagnostic process, both in class time and during independent work.

Conditions and means have been created for the personal participation of residents in the provision of medical care at the level of PHC and hospital. Practical training is carried out through the daily personal participation of a young specialist in medical activities using methods of diagnosis and treatment based on evidence-based medicine, the acquisition of practical skills provided for in the curriculum, and work to promote a healthy lifestyle.

Methods of training residents include: seminars, webinars, conferences, case-studies, training, team-oriented training (TBL); training based on simulation technologies, role-playing games, brainstorming method, group discussion method, portfolio, combined survey, small group training method, simulation technologies, presentations.

The material and technical equipment of the NSOC makes it possible to effectively implement active methods of training (analysis of clinical cases, maintenance of medical records, examination of the quality of medical care, management of patients, training in a clinic with the participation of a real patient, training in primary health care, attendance at medical conferences, consultations, teaching using web-technologies); training through research (participation in the NSC).

The analysis of teaching methods, the examination of the quality of educational programmes is carried out regularly by the Department of postgraduate education, through mutual attendance of classes, participation of teaching staff in scientific and methodological seminars, conferences.

## **2.2. Information on previous accreditation**

In 2019, NSOC LLP underwent institutional accreditation of postgraduate and additional education organizations (continuing professional development), certificate No. IA00021 dated 04.10.2019. This educational programme is accredited for the first time.

### **2.3 Conclusion on the results of the review of the report on the self-assessment of the educational programme in the specialty "Angiosurgery, including children's" of the National Scientific Oncology Center LLP for compliance with the Standards of accreditation of postgraduate programmes (specialty of residency) of medical organizations of education and conclusions.**

The report on the self-assessment of the educational programme "Angiosurgery, including children's" (hereinafter – the report) is presented on 144 pages of the main text, annexes on 22 pages, copies or electronic versions of 32 documents, located at the link (<https://adilet.zan.kz/rus/docs/V2000021727>).

The report is characterized by the completeness of responses to all 9 main accreditation standards and criteria, structured taking into account the recommendations of the Guidelines for the self-assessment of the educational programme provided to the organization of education by the accreditation center - ECAQA, as well as the internal unity of information. The report is accompanied by a cover letter signed by the head of the Chairperson of the Management Board, Doctor of Medical Sciences, A.T. Amanov, who confirms the reliability of quantitative information and information included in the self-assessment report.

The report contains a list of 25 members of the internal self-assessment commission, indicating the responsibility of each employee, information about the representative of the organization responsible for conducting the self-assessment of the educational programme – Zhukubayeva A.A., Head of the Education Department.

The self-evaluation of the educational programme "Angiosurgery, including children's" was carried out on the basis of the order of the head No. 324-OD dated 09.12.2021 "On approval of the composition of the working group for training in specialized accreditation of "National Scientific Oncology Center" LLP.

The report was reviewed by the accreditation expert: A.B. Trunkin, and the reviews noted strengths and areas for improvement, as well as recommendations for additions and changes, including the following:

Standards	Reviewer (s) Recommendations
2	- To include in the educational programme the training of residents in methods of scientific research and medical statistics for the possibility of further admission to a master's or doctoral degree. - involve residents in the maximum implementation of scientific projects (including in the writing of publications and participation in conferences).
3	- introduce a system of self-assessment of residents in the formation of their portfolio - to maximize the involvement of residents in the formation of independence of decisions in both planned and emergency angiosurgery.
6	To equip the simulation room as much as possible with simulators to develop practical skills in vascular suturing and in bypassing and prosthetics of simulation vessels.

Thus, in the process of feedback from the representative of the educational organization, experts received answers to the questions that arose and the self-assessment report was amended accordingly and additions were made to the recommendations of the reviewers.

All standards provide real practice of the National Scientific Cancer Center for the training of residents in the specialty "Angiosurgery, including children's", taking into account the beginning of admission of students in 2022, reasoned data, examples of the implementation of the tasks of the educational programme, national and international events, methodological support, confirming compliance with the requirements of accreditation standards. The description in the self-assessment report is sufficiently complete and updated in terms of the number of residents, teachers, administration, information on selection and admission, learning outcomes, results of knowledge and skills assessment, material and technical base of the university and clinical bases, contractual



obligations with partners (universities, associations, bases), financial information, plans for development and improvement.

The report is submitted to ECAQA in a completed form, with correction of the data on the above recommendations, written in a competent language, the wording for each standard is clear and understandable and described in accordance with the criterion of standards, tables and contain references in the text and have end-to-end numbering.

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

### 3. External expert evaluation assessment

External expert work in the framework of the evaluation of the educational programme "Angiosurgery, including children's" was organized in accordance with the Guidelines for the external evaluation of educational organizations and educational programmes of ECAQA (approved by the order of the Director General of the "Eurasian Center for Accreditation and Quality Assurance in Higher Education and Health Care" No.5 dated February 17, 2017) and in accordance with the programme approved on March 11, 2022 by the Director General of ECAQA Sarsenbayeva S.S. and agreed with the first head of the LLP "National Scientific Oncology Center" Kulkaeva G.N. Dates of the visit to the organization: 29/03/2022-31/03/2022

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

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

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

- interview with management and administrative staff – 10 people in total;
- interviews with residents – 14 people;
- study of the website <https://adilet.zan.kz/rus/docs/V1500012007>;
- interviewing 10 employees, 5 teachers;
- questionnaires of teachers and residents - 5 and 14, respectively;
- observation of the training of residents: attendance at 1 practical lesson (Subject: "Modern aspects of angiosurgery and endovascular surgery", full name of the teacher Sagandykov I.N., the contingent of students: residents, venue: training room);
- review of resources in the context of the implementation of accreditation standards: 9 departments of the practice/clinical training bases of the National Scientific Oncology Center LLP were visited, where training is carried out on 1 educational programme with the participation of 9 full-time teachers/ part-time employees;
- study of educational and methodological documents in the amount of 10 units both before the visit to the organization and during the visit to the units (the list of studied documents is in Attachment 2).

The staff of the accredited organization ensures the presence of all persons indicated in the visiting programme and according to the lists of interviews and interviews (Table 1).

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

<b>№</b>	<b>Full name</b>	<b>Job Title</b>
1	Zhukubayeva Almira Assetkyzy	Head of Education Department, Deputy Chairperson of the Working Group
2	Mukazhanov Adilbek Kairbekovich	Deputy Chairperson of the Management Board for

		Medical Activities
3	Sagandykov Irina Nigmatzhanovich	Head of the Center for Vascular Surgery
4	Azat Myrzabaevich Chinaliev	Senior Resident, Center for Expert Endoscopy and Interventional Radiology
5	Umbetzhanov Erlan Urumbayevich	Head of the Center for Anesthesiology, Resuscitation and Intensive Care
6	Alpysbaev Arman Makhsatovich	Anesthesiologist of the Anesthesiology, Resuscitation and Intensive Care Center
7	Kaliaskarova Kulpash Sagandykovna	Consultant doctor in oncohepatology and gastroenterology of the center for hepatopancreatobiliary surgery, oncohepatology and organ transplantation
8	Zhanasbayeva Marzhan Siyazbekovna	Senior Resident of the Sector of Oncohepatology and Gastroenterology of the Center for Hepatopancreatobiliary Surgery, Oncohepatology and Organ Transplantation
9	Kemaykin Vadim Matveevich	Head of the Center for Oncohematology and BMT with Oncohematological Resuscitation
10	Aynabay Ayagul Maratkyzy	Hematologist of the center of oncohematology and BMT with oncohematological resuscitation
11	Dzhakipov Murat Abdrakhmanovich	Head of the Radiology Center
12	Imangeldina Makpal Sabitovna	Radiologist at the Radiology Center
13	Uskenbayev Talgat Aitbayevich	Head of the Center for Multidisciplinary Surgery
14	Zhanat Spataev	Head of the Center for Hepatopancreatobiliary Surgery, Oncohepatology and Organ Transplantation
15	Adylkhanov Tasbolat Alpysbayevich	Senior lecturer of the sector of teaching staff of the Department of Education
16	Shakirova Aida Fazylovna	Senior Resident of the Cancer and Gynecology Sector of the Multidisciplinary Surgery Center
17	Talgat Amanzholovich Kurmanov	Senior Resident of the Oncourology Sector of the Multidisciplinary Surgery Center
18	Mustafinov Dauren Dulatovich	Urologist of the Oncourology Sector of the Multidisciplinary Surgery Center
19	Jamila Zhumabekovna Saparbay	Head of Science Department
20	Beissenova Nursaule Dmitrievna	Chief specialist of the sector of organization of postgraduate and additional education of the department of education
21	Zhusupbekov Darkhan Dyusembayevich	Chief Specialist of the Library of the Department of Education
22	Tazhmakina Kulshat Temirbekovna	Chief Specialist of the Library of the Department of Education
23	Zhannat Elemesovna Tashenova	Leading specialist and additional education of the Department of Education
24	Tulemisov Abay Kanatovich	Resident physician 4 years of study in the specialty "Angiosurgery, including children's"
25	Kochiev Bayram Alimogly	Resident doctor 2 years of training in the specialty "Radiation diagnostics"

Thus, when implementing the activities of the programme, namely, based on the results of the interview with the first head of the organization, members of the advisory body – the SC, 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 organization, took part in the formation of proposals for the formulation of the mission, while the mission was brought to the attention of potential residents through the website, social networks, information letters to medical organizations. The strategic plan of the organization for the period of 5 years (2021-2025) was reviewed, including such areas as the development of human resources and research activities, the redistribution of the source of income for the economic development of the NSOC, the allocation of monetary assets to academic potential, information support and digitalization of processes, increasing the satisfaction of employees with their work, employers, students - the conditions and process of training, which confirms the fulfillment of the accreditation standard and demonstrates the goals, objectives and prospects of the organization. From interviews with residents, it was established that before the beginning of classes, teachers inform about the mission, work plans of the organization of education, say where to get the necessary information about the educational abdominal aorta and visceral arteries, it was established that residents answer all the questions asked, receive feedback from the teacher, the opportunity to improve skills in the diagnosis and treatment of vascular diseases.

The organization's documents contain work programmes, EMCD, which define the goal, take into account the integration of practical and theoretical components, independent work. Compliance with the SCES and standard requirements has been established. Attending the practical training on the topic "Modern aspects of angiosurgery and endovascular surgery", held as a seminar in the amount of 2 hours, the experts received convincing data that the training is carried out according to the plan, before the beginning of the lesson, the residents answer the tests, receive feedback from the teacher, have the opportunity to improve the skill in angiosurgery. The organization ensures compliance with ethical aspects in the implementation of the educational programme, since the experts studied the code of ethics (May 1, 2019) and during the interview, the residents replied that they were informed about the content of this document.

The second half of the lesson was held in the simulation room. Experts saw that the organization meets the development of practical competencies of residents. Residents deepen their theoretical knowledge, develop communication skills in the basics of angiosurgery.

The analysis of educational activities showed that the scientific basis and all the achievements of science in advisory disciplines are taken into account, additions are made to the bibliography of the EMCD and syllabuses, and teachers apply them in classes.

A review of the monitoring and measurement tools (tests, situational tasks, written examinations) showed that the organization has implemented an appropriate evaluation policy that allows for a multifaceted assessment of the learning achievements of residents. During the interview, the residents spoke about the forms of assessment, in addition to the traditional sections of knowledge (testing, written exam), for example, in the morning when discussing patients before the operation, teachers ask residents theoretical questions about the patient's disease, regarding the diagnosis of this nosology, and tactical approaches to treatment, if the resident did not demonstrate a sufficient level of theoretical readiness should be punished in the form of suspension from participation in the operation. According to the residents, it is established that this type of knowledge assessment strongly motivates the residents to prepare for surgical intervention both theoretically and practically, and the residents are satisfied with the fairness of this type of assessment. And also this rating system allows you to get instant feedback from the teacher. The system of appealing the results of the assessment is reflected in the document (according to the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600. Registered with the Ministry of Justice of the Republic of Kazakhstan on October 31, 2018 No. 17650 "On approval of the Standard Rules for admission to training in educational organizations that implement educational programmes of higher and postgraduate education", the Rules for admission to the residency for 2021-2022 academic year, approved by the Board, Protocol No. 106 - OD dated 05.07.2020) and during the work of the organization of education there were no precedents of appeal. Thus, compliance with standard 3 has been established.

During a visit to the organization and during an interview with the Deputy Board for Scientific Work and PGE Shalekenov Sanzhar Bulatovich, the commission made sure that there is a documentation system that is transparent and accessible to all teachers and staff, and includes documents such as annual operational plans, annual reports, regulations of departments, contracts with teachers and residents, cadets professional development, and educational and methodological documentation (work programme, work curricula, syllabuses, journals), evaluation tools (checklists, statements), certificates, certificates and certificates. A review of the website showed that its pages contain the necessary calendar and thematic lesson plans for residents, schedules of the semi-annual assessment, rotation schedules of residents by office, approval of supervisors, and Rupa, which is regularly updated. This information was obtained during an interview with residents and with the Deputy Chairperson of the Board for Scientific Work and PGE Shalekenov Sanzhar Bulatovich.

The conversation with Shalekenov Sanzhar Bulatovich, Deputy of the Board for Scientific Work and PGE, included such questions as "How many doctors of practical health care are involved as mentors of residents?" "How is the selection of applicants for the residency carried out?" "Are scientific achievements or results of other student activity taken into account in the selection of applicants for admission to the residency?" and allowed experts to learn about approaches to attracting staff of clinical bases for teaching (a total of 5 such teachers), about the strategy and tactics of recruitment of residents, information security of the educational programme, as well as to identify problems in the management and development of human resources. In "NSOC" LLP, all teachers have certificates for advanced training in pedagogy with a statute of limitations of not more than 5 years.

Interviews with 5 teachers, including 5 full-time, showed that specific bases (a sufficient number of thematic patients, time for maintaining medical records, independent work) have no problems in management. Emergency angiosurgical care is provided at the main clinical base in the NSOC within the framework of sanitary aviation, in connection with which there is no shortage of training for residents in the provision of emergency angiosurgical care.

On the same day, experts studied materials on the admission of residents and the selection of teachers and established compliance with standard 4.

In order to verify the data of Standard 5, external experts received an opinion on personnel policy and approaches to the development of teachers' pedagogical competence, motivation to work with residents, and mentoring. Experts found that there is a sufficient number of teachers to implement the educational programme. The faculty is formed on the basis of the requirements for the effective implementation of educational programmes, as well as on the basis of the total amount of study load. The number of teachers at the Centre holding a degree or/and academic rank is more than 62 %. From 2010 to 2021, at the expense of budget programmes, 302 specialists of NSOC in Russia, Germany, the USA, Korea, Belgium, Israel, Belarus, France, Turkey, etc.

At the same time, the teaching staff has the opportunity to improve their qualifications both in their clinical specialty and in the methodology of medical education. Thus, in 2021, from 6 to 10 December, a refresher training cycle was held for the "School of Clinical Mentor. Topical issues of postgraduate education", where 20 employees of the NSOC were trained, from January 24 to January 28, 2022, the cycle "School of clinical mentor. Topical issues of postgraduate education", 35 specialists of the NSOC were trained. As a result of the organization of these educational events, the entire faculty was trained. There are 5 angiosurgeons among the doctors.

Within the framework of the strategic partnership with the University Pittsburg Medical Center for 2016-2017, 5 angiosurgeons of the NSOC were upgraded on the basis of UPMC clinics on the implementation of advanced clinical/management technologies, including methodological approaches in the residency. In 2021, 3 specialists were trained at the expense of the World Bank.

Teachers have enough time for teaching, mentoring, stimulate the need for additional training and independent work with literature. Lecture halls, conference halls are equipped with the necessary technical equipment – stationary multimedia projectors, video and audio equipment for scientific and practical conferences, master classes, training sessions, teleconferences.

On the basis of NSOC there are 3 study rooms for 10-20 people, a large conference hall with a capacity of more than 70 people, a small conference room for 20 people.

A simulation class of 32 m<sup>2</sup> equipped with dummies and simulators is functioning to ensure the quality of training. Here it should be noted that the simulation class is not sufficiently equipped with imitations. This circumstance has been pointed out and management has undertaken to rectify it as soon as possible. The library with a reading room in the NSOC is designed for 14 seats, equipped with computers connected to the Internet. In addition, lectures, including online, practical and individual classes with residents are held in the reading room on a regular basis.

Since the 1st year of training, resident angiologists participate in the active activities of the department – assistance, independent operation under the supervision of senior mentors, joint visits and flights with mentors through the sanitary aviation line, actively participate in clinical activities, independently lead patients, do bandages and other angiological manipulations. To teachers, experts asked some questions: "What is the complexity of manipulations and operations which you trust residents?" Answer: "Practically all manipulations, of any degree of complexity, are performed by all residents from the 2nd year of training. However, all these activities are carried out with the active participation and supervision of teachers or practitioners." The next question is: "How do you test the theoretical knowledge of residents in relation to practical activities?" Answer: "First of all, before admission of a resident to any type of manipulation or operation, a survey is made about the upcoming manipulation, the theoretical justification of the latter, possible complications and consequences." Teachers gave specific and substantiated answers to all the questions asked.

During the visit to clinical bases, a survey of resources was carried out, their compliance with training programmes, accessibility for teachers and residents, as far as this equipment is modern and meets the needs of students and practical health care. Experts obtained evidence of compliance with Standard 6, as well as validation of the information in the self-assessment report.

In order to validate the implementation of the self-assessment report and to obtain evidence on the quality of the programmes, interviews were conducted with residents in the specialty. The experts asked questions about satisfaction with the training, enough time for patient supervision, work with medical documentation, satisfaction with teaching methods and qualifications of teachers, social and moral support for residents in need, participation in "Morning medical conferences with reports", the availability of resources of international databases of professional literature. In general, residents are satisfied with the training, assessment methods, and purposefully entered this organization, since they believe that the organization of education has good resources, image and international relations, at the same time, residents have a fairly high level of independence in the management of patients. Residents are interested in more active participation in international conferences and symposia.

Residents showed their commitment to the organization of education, were active in answering the questions of external experts, demonstrated their judgment on the organization of training, assessment of their skills, advisory support, opportunities to participate in research, funding, demonstrated their proficiency in English when answering the questions of a foreign expert Ryzhkin Sergey Alexandrovich. Members of the External Expert Commission (EEC) Experts studied the documents of residents (portfolio, results of assessment of residents - checklists, results of questionnaire of residents).

Interviews with 2 employers were conducted online and included such issues as: knowledge of the mission of the NSOC, participation in the development of the mission and proposals in the strategic plan, participation in the work of advisory bodies, satisfaction with the basic knowledge and skills of residents, participation in the training of residents through mentoring. Providing the Center and residents with the necessary resources for practical training and the formation of clinical thinking about the problems of interaction with the teaching staff of the Center. The percentage of employment of graduates of the educational programme "Angioplasty, including children's" implemented in "NSOC" LLP was 94%. In general, during the interview with employers, positive feedback was received about the quality of training of specialists and their competence as angiologists.

The review of resources showed that they correspond to the goals and objectives of educational activities, for example, the clinical units of the NSOC with a total bed capacity of 243 were visited, and the employees of the organization of education provide a collegial and ethical relationship with medical personnel, the management of the clinical base to achieve the final results of residents. A sufficient number of thematic patients, modern equipment and demonstrates accessibility to students are provided, and employees who simultaneously perform the roles of teachers and mentors (mentors) provide high-quality training in compliance with ethics and deontology. Before starting the relevant discipline of the educational programme, the resident receives a syllabus from the teacher and knows what skills he must acquire and develop during the training.

The educational programme ensures the compliance of the content of the residency programme with the requirements of the State Standard of the Republic of Kazakhstan, and the training of residents is carried out in accordance with the principles reflected in the State Standard of the Republic of Kazakhstan.

Teaching and learning methods correspond to the ultimate learning objectives. Residents actively participate in the provision of medical care, applying the acquired theoretical knowledge and thereby developing the ability to assume responsibility in various clinical situations. The implementation of the educational programme is carried out using the principles of quality, academic honesty. The principle of mentoring of residents is implemented in the NSOC, and this activity is regulated in the Regulation on mentoring developed and approved by the Academic Council. In addition to obtaining academic knowledge, residents acquire other useful skills through the implementation of socially important activities (specialized care (angiosurgery) in urban outpatient medical institutions, volunteer assistance during the COVID-19 pandemic, etc.). The introduction of a competency-based approach to the educational process ensures the development of knowledge, skills and professional attitude corresponding to different roles of the doctor. The educational programme can be adjusted in accordance with the expectations and requests of employers and the wishes of residents, as demonstrated in the report (feedback study). The self-assessment report describes in detail the structure, composition and duration of the educational programme, clearly defining the mandatory component and the component of choice. The training of urologists is carried out on the basis of an analysis of the needs of the regional health system. The programme takes into account the final results of training, clearly describes the minimum number of procedures and surgical interventions that a resident doctor must perform in each year of his training. When planning the educational programme, equal representation is ensured and the needs of all stakeholders are taken into account. NSOC LLP has all the accreditation requirements, in which it provides scheduled angiosurgical care, including highly specialized.

On the last day of the visit to the organization, a meeting of EEC members was held on the results of the external evaluation. The final discussion of the results of the external evaluation of the educational programme, the study of documents, the results of the interview, questionnaires was held. EEC members started designing the final EEC report. The results of the external evaluation are summarized. The experts individually completed the "Quality profile and criteria for external evaluation of the educational programme: " Angiosurgery, including children's" for compliance with the ECAQA Accreditation Standards". No comments were made by the EEC members. Recommendations on improving the educational programme were discussed and Chairperson V.M. Madyarov held a final open vote on recommendations for the ECAQA Accreditation Council for the accreditation period of 5 years.

For the work of the EEC, comfortable conditions were created, access to all the necessary information and material resources was organized. The Commission notes the high level of corporate culture of "National Scientific Oncology Center" LLP, the high degree of openness of the team in providing information to the members of the EEC.

At the end of the programme of the visit, the chairperson of the EEC for the management and employees of the organization of education announced recommendations on the results of an external assessment within the framework of specialized accreditation.

#### **4. Results of the survey.**

The ECAQA observer conducted an online questionnaire on 29-31.03.2022 at <https://webanketa.com/>.

##### **The resident survey includes 24 questions.**

In total 14 people (in total 14 residents for the current year) answered, while recommendations to study in this organization to the relatives gave 77,59%. 93.1% noted awareness of their problems by programme managers and teachers. 77,59% consider that heads of programmes and teachers involve in work of deliberative bodies. 79.31 per cent were satisfied with the conditions and facilities of the classrooms. 84.48% have personal access to equipment for mastering practical skills in the specialty. 74.14% are provided with necessary literature. 82.76% are provided with materials and additional literature to prepare for classes. 51.72% study under the guidance of their mentor. 56.9 per cent were satisfied with the library collection. 87.93% are satisfied with the organization of teaching. 94.83% have sufficient time for practical training. 93.1% are satisfied with the curriculum. 91.38% are satisfied with the methods of knowledge assessment. In the classroom, 84.48 per cent of teachers use interactive methods. At 96.55%, after completing the classes, the teacher conducts feedback. At 48.28%, seminars are held within the framework of the programme during the month. 98.28% believe that "NSOC" allows to acquire knowledge and skills. 77.59% rate the organization of training as "excellent". For 96.55% the teacher is an example. 94.84% note the sufficiency of the number of patients for curating or assisting in operations. 87.93% believe that accreditation of the institution is necessary to ensure the quality of education in the residency. 41.38% consider the most important tools for external evaluation of the interview with the management of "NSOC". At the same time, 44.83% choose to attend practical classes and seminars. 48.28% consider the interview with graduates to be the most important.

**The teacher survey included 23 questionnaire questions.** In a survey of teachers, the pedagogical experience was more than 10 years. He noted his role in the preparation of the resident in 33.33%, the satisfaction of the educational process – 77.78%, subordination – 88.89%, the organization of work – 88.89%, the opportunity for career growth – 77.78%, the opportunity to engage in HP – 88.89%, wages are satisfied with – 44.44%. Participation in the development of methodological materials – 66.67%, advanced training courses during this year – 66.67%. Conducting seminars with residents under the programme once a week – 55.56%. Possibility of realization as a professional in the specialty – 88.89%. Consent to the adequacy of equipment and resources for training residents – 77.78%. Satisfaction with the work of the department of postgraduate education – 88.89%. Support for participation in conferences – 77.78%. Conditions for improving practical skills – 100%. During the lesson with residents, I have the following materials: cases – 88.89%, syllabus and educational and methodological complex of the discipline – 100%, educational journal – 66.67%, control and measuring tools – 77.78%. In 33.33%, it satisfies the level of previous training of students. 88,89% to personal opinion the management listens. Of the most frequently used learning processes, 77.78% - oral analysis of the topic, 66.67% - lectures, etc. 77.78% - believe that this questionnaire is useful. In 77.78% consider accreditation an important mechanism for ensuring the quality of postgraduate education.

The results of the survey generally demonstrate satisfaction with the educational process, the resources of the clinical base, the competencies of teachers, and also indicate the existence of a centralized management of the educational programme "Angiosurgery, including children's".

#### **5. Analysis for compliance with accreditation standards based on the results of an external evaluation of the educational programme in the specialty "Angiosurgery, including children's"**

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

### **Evidence of compliance:**

#### **1.1 Mission statement and deliverables**

The mission of the educational programme is defined in 2019, the healthcare community is widely communicated to all units of the healthcare sectors through the website of the center. Also, through various events in medical institutions of the Republic of Kazakhstan, all the most significant objects of practical health care are aware of the presented programme. For the same purpose, the Mission itself has been compiled, and specialists are being recruited and trained in accordance with the needs of various health organizations in Kazakhstan.

#### **1.2 Professionalism and professional autonomy**

All residents, on duty for emergency care (72 hours), are able to form special skills and necessary knowledge for making independent decisions in terms of diagnosis, treatment and further management of patients. The self-report fully confirms the independence of the NSOC structure of the educational programme, in the selection of personnel for training, determines the criteria for assessment and admission to the residency. Regulations on residency, organization of performance monitoring and the course of the educational process determine the academic autonomy of residents. The self-assessment report comprehensively reflects all the practical skills that a graduate of the residency in the educational programme "Angiosurgery, including children's" must possess. The self-report also defines all learning outcomes.

#### **1.3 Learning outcomes**

The EP focuses on the development of practical skills, in solving various clinical forms of diseases, builds sustainable knowledge in the field of diagnosis and treatment. Thus, the formation of independence and high qualification of an angiosurgeon is the main result of training in the residency. Also, great attention is paid to the continuous improvement of professional and qualification skills.

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

All stakeholders who formed the EP Mission (teaching staff, clinical mentors, the Center's administration, residents, employers, graduates themselves) took an active part in its implementation.

*Conclusions of the EEC on the criteria.* Compliant with 17 standards: fully – 16, partially – 1, non-compliant – 0

*Standard 1: Implemented*

*Recommendations for improvement identified during the external visit:*

1) Incentives for residents to engage in research.

## **Standard 2: EDUCATIONAL PROGRAMME**

### **Evidence of compliance:**

#### **2.1 Postgraduate programme framework**

The report on the self-assessment of the educational programme "Angiosurgery, including children's surgery" of "National Scientific Cancer Center" LLP defines the purpose and results of the educational programme based on obtaining and ensuring the final results of training residents and their qualifications.

#### **2.2 Scientific method**

In the process of training, residents master the basics of evidence-based medicine and use scientific data in their practice.

#### **2.3 Content of the residency programme**

The principle of mentoring of residents is implemented in the NSOC, and this activity is regulated in the Regulation on mentoring developed and approved by the Academic Council.

#### **2.4 Programme structure, content and duration**

The distribution of disciplines cycles by semester and the number of hours of training is carried out by the PGE department. All disciplines of accredited EP in the specialty "Angiosurgery, including



children's" interact with each other. The self-assessment report pre-scanally describes the structure, composition and duration of the educational programme. There is a clear definition of mandatory and selective components. Analysis of the needs of the healthcare system of the Republic of Kazakhstan predicts the training of angiosurgeons, both in number and in their narrower specialty. The EP clearly defines the final results of the training, prescribes the number of different procedures, independent surgical interventions, the number of assistants that the resident must perform in each course of his training. The needs of all stakeholders are equitably represented and accounted for in the EP planning.

### **2.5 Organization of training**

The main clinical base is "NSOC" for 243 beds – these are patients with cancer, as well as patients with a vascular pathology, combined with cancer, directed to a planned surgery. Residents are rotated to other hospitals of the city of Nur-Sultan to study elective discipline. NSOC LLP has all the accreditation requirements that contribute to the release of highly qualified angiosurgeons for the provision of planned angiosurgical care, including highly specialized.

### **2.6 Relationship between postgraduate medical education and health care**

Residents are allocated to their mentors who have a scientific degree or a qualification degree, with at least 10 years of work experience. Under their supervision and guidance, residents improve their skills from performing the simplest manipulations to operating independently. At the same time, the mentor daily analyzes the clinical thinking of the resident and assesses his communication skills.

*Conclusions of the EEC on the criteria.* Compliant with 31 standards: fully -30, partially -1, non-compliant - 0.

*Standard 2: Implemented*

*Recommendations for improvement identified during the external visit:*

- 1) To include in the educational programme the training of residents in methods of scientific research and medical statistics for the possibility of further admission to a master's or doctoral degree.
- 2) To involve residents in the maximum implementation of scientific projects (including in the writing of publications and participation in conferences).

## **Standard 3: ASSESSMENT OF STUDENTS**

### **Evidence of compliance:**

#### **3.1 Methods of evaluation**

The knowledge of residents is assessed by current, midterm, final control.

Oral questioning, testing, written examination, demonstration of practical skills on checklists are used. The assessment will be objectified by independent experts. When conducting the final state certification, it is called the inclusion of external examiners, as well as practitioners of health care in the commission. The results of certification are recorded in paper or electronic journals and examination sheets are formed. Training logs are filled in accordance with the calendar and thematic plan, in accordance with the schedule and the dates of the current, milestone and final control reflected in the syllabus.

#### **3.2 Relationship between evaluation and training**

The methods used to assess the competencies of students at NSOC LLP are defined in syllabuses for disciplines that are discussed and approved by the PGE department. In the syllabus, the website of the Center presents the criteria for assessing the knowledge of residents, which are also presented in the first lesson in each discipline. There is feedback from the resident – an anonymous survey confirming the quality and effectiveness of education. The degree of development of the resident as a specialist doctor is assessed according to the rotation schedule. These are communicative, personal qualities, scientific interest, professionalism are evaluated according to the rotation schedule.

*The conclusions of the EEC meet the criteria* of 11 standards: fully - 10, partially – 1, does not comply -0.

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

- 1) To introduce a system of self-assessment of residents in the formation of their portfolio
- 2) To maximize the involvement of residents in the formation of independence of decisions in both planned and emergency angiosurgery.

**Standard 4: STUDENTS**

**Evidence of compliance:**

**4.1 Admission and Selection Policy**

Documents according to the approved schedule, wishing to enter the residency submit according to the information on the site. Also, applicants to the residency receive advice in the department of postgraduate education. An examination commission is formed, as a part of which faculty with an academic degree determine the list of questions for the examination. In addition to assessing the level of knowledge, the personal achievements of the applicant and his scientific research work are also taken into account. The examination is recorded on video, which ensures the fairness and transparency of the selection of clients.

**4.2 Number of residents**

The number of residents admitted to this specialty is determined by the size of the state order of the Ministry of Health of the Republic of Kazakhstan, as well as on the basis of the emerging need of specialists, depending on the orders of various executive health authorities. Given the fact that the NSOC has its own needs in this specialty of doctors, limited recruitment of residents is carried out specifically on a paid basis. The need for specialists by region, which changes annually, is monitored by the organization itself.

**4.3 Resident support and advice**

In the process of training a resident angiosurgeon, practically the entire staff of the NSOC participates, which allows residents to quickly join the team. Each resident has his own clinical mentor who solves not only the problems of obtaining knowledge, but also some personal problems of the resident. In some cases, the rest of the faculty members and the management of the center are involved. PGE "NSOC" helps all its graduates in employment and constantly keeps in touch with them.

**4.4 Representation of residents**

A distinctive feature of NSOC LLP is the fact that the residents themselves, together with the faculty, organize the educational process, as well as the methods of its evaluation. Surveys are systematically conducted through questionnaires, where residents answer questions not only about teaching methods and assessments, but also about some of their personal problems. Thus, for example, according to the results of the last survey of residents, the latter were given greater autonomy and activity during shifts.

**4.5 Working conditions**

There are all conditions for comfortable work of residents (a wardrobe, a separate dining room, recreation areas - halls for table tennis, showers. Residents are provided with all means of protection for X-ray endovascular operations).

***Conclusions of the EEC on the criteria.*** Compliant with 30 standards: full – 30.

***Standard 4: Implemented***

**Standard 5: FACULTY**

**Evidence of compliance:**

**5.1 Recruitment and Selection Policy**

Systematic work on the training and retraining of scientific and pedagogical personnel is carried out in the "NSOC". The personnel policy of the center is to enter into employment contracts and fill vacant positions on a competitive basis. Continuous work is being carried out to improve the qualifications of scientific and pedagogical personnel. Teachers are recruited on a competitive basis

through the application of highly effective innovative selection and appointment criteria by the centre's management. For the effective implementation of the EP, the teaching staff is provided with all the necessary resources. There is constant and free access to the Internet.

## **5.2 Teachers' obligations and development**

The mission of the EP in the residency "Angiosurgery, including children's", changing correlates with the training and assessment criteria, adjusting with the volume of activities of the teaching staff.

TS have the opportunity to continuously upgrade their skills in line with the Mission's achievement and learning outcomes.

The management of the Center constantly organizes trips for teaching staff to study, participate in international congresses and forums, which improves not only the quality of research and pedagogical work, but also full compliance with the individual plan of teaching staff.

*Conclusions of the EEC on the criteria.* Compliant with 7 standards: full – 7.

*Standard 5: Implemented*

## **Standard 6: EDUCATIONAL RESOURCES**

### **Evidence of compliance:**

#### **6.1 Logistics and equipment**

NSOC LLP has a large material and technical base. The expert committee demonstrated a sufficient number of training rooms, a simulation room, a library, clinical departments, an operating unit, resuscitation, laboratories, lecture halls. All this allows you to support the EP. The operating unit has 10 operating rooms, an interventional surgery center – 2 halls, an expert endoscopy center – 1 hall, a wake-up room - 6 beds. The entire Center is a complex of modern and high-precision equipment that allows you to provide highly specialized medical care.

#### **6.2 Clinical Bases**

NSOC LLP has a sufficient bed capacity (243 beds), there are specialized departments for residents to acquire practical skills. In addition, there are the following clinical bases (SPE on REM "Multidisciplinary Medical Center", SPE on REM "Multidisciplinary Regional Hospital No.2", SPE on REM "Hospital of the Medical Center of the Office of the President of RoK " on REM, LLP "Aesthetic Life", CF "University Medical Center").

#### **6.3 Information technology**

At NSOC LLP, the therapeutic process is carried out using the electronic system Damumed. There are information and telecommunication technology systems, fully operational telemedicine system. All this increases the ability of faculty and residents to access electronic resources.

#### **6.4 Clinical Teams**

The work of NSOC is arranged in such a way that from the first days, residents actively interact with all employees of various departments of the Center. Participate in scientific and practical conferences, clinical debriefings, pathoanatomical conferences. The responsibility of residents is increased as a result of the correct organization of system communication of all employees of the institute. The resident performs all the duties assigned to him/her within the limits of his/her knowledge and practical skills under the guidance of clinical mentors.

#### **6.5 Medical Research and Advances**

Residents' R&D is carried out under the mentoring of a teacher, completely independently. This strengthens both practical skills and theoretical compensability. The expert commission demonstrated resident reports both within hospital conferences and in other forums.

#### **6.6 Education expertise**

The Department of PGE LLP "NSOC" shows a continuous examination of the quality of EP, the level of knowledge and competence, as well as interaction with employers, the Quality Management Department and representatives of various professional associations and associations.

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

Residents-angiosurgery "NSOC" are provided with the opportunity to train them in other organizations both in Kazakhstan and abroad. The Commission was provided with all the necessary documents on this circumstance.

**Conclusions of the EEC on the criteria. Compliant with** 21 standards: fully -20, partially - 1.

**Standard 6: Implemented**

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

1) To equip the simulation room as much as possible with simulators for practicing practical skills in applying a vascular suture and in shunting and prosthetics of simulation vessels.

## **Standard 7: PROGRAMME EVALUATION**

### **Evidence of compliance:**

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

The expert commission presented the documents confirming the continuous monitoring of EP by the management of NSOC LLP. The Commission assessed the documents on the interim and final certification of residents. Evaluation documents for interim and final certification are provided. The document "Regulations on the organization of the educational process and monitoring the performance of residents, dated 24.04.2020" is presented.

#### **7.2 Feedback from teachers and residents**

Consumers of medical services provided at the NSOC assess the quality of teaching and skills of residents by means of patient questionnaires. This method demonstrates the ability of residents to independently solve the issues of diagnosis and treatment of patients, as well as demonstrates their ability to communicate. This intelligent use of feedback is invaluable in introducing changes to the EP and allows for a better understanding of the needs and opportunities of both residents and TS.

To assess the feedback from teachers and residents, the blog of the Chairperson of the Board is also used, where it is possible to directly receive answers from the first head of the NSOC.

In general, the use of feedback contributes to a better understanding of the current needs of students and teachers and is systematic when making changes to the educational programme.

#### **7.3 Results of Residents and Graduates**

The Commission assessed the activities of NSOC. A very convincing point is the fact that all 100% of residents are employed in the specialty that they received as a result of their residency, "Angiosurgery, including children's". During the Commission, a videoconference was held with employers and a very positive and positive feedback was received about graduates of the "Angiosurgery, including children's", who studied at "NSOC".

#### **7.4 Stakeholder Engagement**

The Commission positively assessed the evidence of the interest of all parties in the unification and improvement of the EP.

#### **7.5 Procedure for Approval of Educational Programmes**

The PGE Department carries out the assessment for compliance with the SCES. Elective disciplines are approved on the basis of the needs of residents, employers' requests. EP is continuously improved and supplemented as a result of systematic study and comprehensive assessment of TS. Highly qualified other medical institutions of the country are also involved in the assessment.

**Conclusions of the EEC on the criteria. Compliant with** 15 standards: fully – 15.

**Standard 7: Implemented**

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

### **Evidence of compliance:**

#### **8.1 Control**

#### **8.2 Academic Leadership**

EEC provided the following documents:

1. Tripartite agreements for residents enrolled in grants at the expense of the LEB "Center – Health Department or Healthcare Institution – Residence Student".

2. Standard rules for admission to education, implementing educational programmes of higher and postgraduate education, which *determine the procedure for admission of citizens to the residency*. Procedures for admission and selection of residents.

3. The developed and approved main internal document "NSOC", which defines the scope of duties and powers of the Center in relation to the EP residency.

4. "Academic Policy" (decision of the Board, Minutes No.5 dated August 28, 2019).

5 The results of the assessment of residents and the achievements of the final results of training under the residency programme.

6 Annual orders of the first head on carrying out FSA as a part of the certification commission.

The implementation of the EP for residency complies with the regulations of the Ministry of Health and Social Development and the Government of the Republic of Kazakhstan, as well as the educational process programme approved by NSOC LLP.

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

The number and distribution of funds for the organization and maintenance of the educational process have been demonstrated to the Commission. From the submitted documentation and the self-assessment report, it was determined that the last acquisition of fixed assets was carried out in 2018. From 2016 to 2021, there was no funding for academic mobility of the Center. From the submitted documentation, information about the staffing schedule of the faculty and mentors of NSOC LLP was obtained.

### **8.4 Administration and Management**

In NSOC, the staffing table has an administrative and academic correspondence to the staffing of employees implementing EP. The quality management assurance programme is demonstrated. Internal and external audits are carried out regularly.

### **8.5 Requirements and regulations**

The NSOC LLP follows the definition of the national authorized bodies of the number and recognized medical specialties and other functions of medical experts, for the training of which postgraduate training programmes are developed.

The educational programme of the residence, specialty 7R01119 "Angiosurgery, including pediatric surgery", is being implemented by "NSOC" LLP. This corresponds to the Centre's adherence to the definition of national authorities and other recognized medical professions to determine the role of the medical experts who are developing the PGE programme. The protocols for the diagnosis and treatment of diseases in adults and children "Varicose disease", "Post-thrombophletic syndrome", "Arterial thrombosis and embolism", "Surgical treatment of atherosclerosis", "Surgical treatment of congenital angiodyplasia", "Vascular surgery", "Surgery of vasorenal hypertension", "Surgery of chronic abdominal ischemia", "Surgical treatment of Takayasu syndrome", in the preparation of which the TS "NSOC" LLP was involved, were demonstrated.

*Conclusions of the EEC on the criteria. Compliant with 15 standards: fully – 15.*

*Standard 8: Implemented*

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

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

The Center has developed a policy for the formation and selection of personnel, including scientific, pedagogical and clinical advantages.

Courses and refresher courses are held in the specialty and pedagogy. Plans for further training of teaching staff in accordance with the changing needs for postgraduate medical education.

There are developments of advanced training courses for doctors taking into account modern requirements of science and technology. The necessary equipment for the angiosurgery center is being provided. Simulation centers are used in the educational process.

*Conclusions of the EEC on the criteria.* Compliant with 4 standards: fully - 4.  
*Standard 9: Implemented*

**Recommendations for the improvement of the educational programme in the specialty "Angiosurgery, including children's"**

1. Improve the resident training programme in terms of research and selection of prerequisites for further admission to PhD (**standard 2**).

2. Include in the thematic plan the implementation and protection of scientific projects to strengthen the scientific component of resident learning (**Standard 2**).

3. Include an advisory body or the establishment of a resident council in the educational programme to improve the quality of education. (**Standard 2**).

4. Improve the system for assessing the performance of the scientific work of residents (**standard 3**).

5. Improve the work of residents on simulation simulations (**standard 3**).

6. Improve the equipment of simulation rooms to develop practical skills (**standard 6**).

## 7. 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 programme **7R011109 "Angiosurgery, including children's" LLP "NSOC"**, which meets the Standards of accreditation of educational programs of the residency of medical educational organizations for a period of 5 years.

### Chairperson of the External Expert Commission

Magyarov Valentin Manarbekovich

### Foreign Expert

Ryzhkin Sergey Alexandrovich

### National Academic Expert

Mustafin Alibek Khamzenovich

### National Academic Expert

Zhumashev Ualikhan Koshkaralievich

### National Academic Expert

Yesenkulova Saule Askerovna

### National Academic Expert

Trynkin Alexey Viktorovich

### National Academic Expert

Slavko Elena Alekseevna

### National Academic Expert

Bazarbayeva Aigul Abayevna

### National Academic Expert

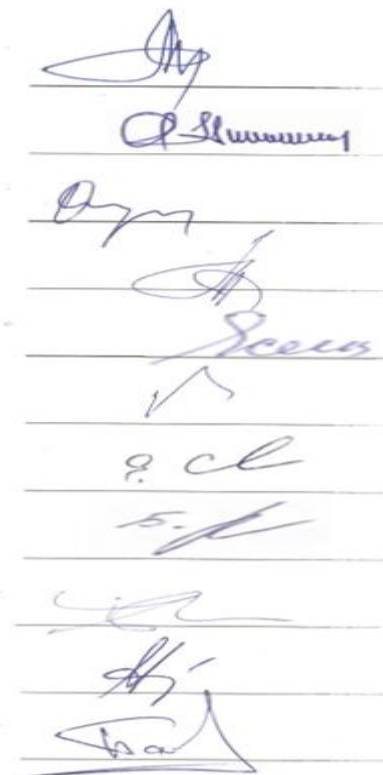
Ulanbek Zhanbyrbekuly

### Expert - Representative of Employers

Ospanovamadinaeralyevna

### Expert - Resident Representative

Baymukhanov Dauren Samarkhanovich



The image shows a vertical list of ten handwritten signatures in blue ink, each written on a horizontal line. The signatures are stylized and vary in complexity, representing the members of the External Expert Commission listed to the left of the page.

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

Standard	Evaluation Criteria	Number of standards	Estimation		
			Fully compliant	Partially compliant	Not compliant
1	MISSION AND END OUTCOMES	17	16	1	
2	EDUCATIONAL PROGRAMME	31	30	1	
3	ASSESSMENT OF STUDENTS	11	10	1	
4	STUDENTS	30	30		
5	FACULTY	7	7		
6	EDUCATIONAL RESOURCES	21	20	1	
7	PROGRAMME EVALUATION	15	15		
8	GOVERNANCE AND ADMINISTRATION	15	14	1	
9	CONTINUOUS RENEWAL	4	4		
	<b>Total:</b>	<b>151</b>	<b>146</b>	<b>5</b>	



**Attachment 2.****List of documents reviewed by EEC members as part of the external evaluation educational programme 7R01119 "Angiosurgery, including children's".**

<b>№</b>	<b>Names of documents</b>	<b>Quantity</b>	<b>Date of approval</b>
1.	State license of the Committee for Control in the Sphere of Education and Science of the Republic of Kazakhstan dated December 13, 2016 No.KZ81LAA00007958	1	date of initial registration - July 08, 2010.
2.	Certificate of Accreditation	1	No.005912 dated 18.10.2019 Nur-Sultan)
3.	"Rules for the organization of the educational process in the residence of the NSOC", approved by the order of the Chairperson of the Board of the NSOC	1	July 5, 2019 No.106-OD.
4.	Educational (working) programme, approved by EMC NSOC.	1	14.07.2020
5.	Concepts for the development of NSOC	1	August 1, 2019 No.420.
6.	Provisions on "Temporary scientific collectives"	1	No.197 dated 30.09.2019
7.	Regulations on the Academic Council	1	No.129 dated 29.07.2019
8.	Regulation on the Local Ethics Commission	1	No.129 dated 29.07.2019
9.	CED for 2021-2022	1	
10.	IEPI. WEPI		