

To Accreditation Council  
Of Eurasian Center  
For Accreditation and Quality Assurance  
In Higher Education and Health Care  
12/20/2021

**REPORT  
OF THE EXTERNAL EXPERT COMMISSION  
ON THE RESULTS OF THE EVALUATION OF THE EDUCATIONAL  
PROGRAMME  
7R01137 NEUROLOGY, ADULT, PEDIATRIC  
OF JSC "NATIONAL CENTER FOR NEUROSURGERY" OF THE  
MINISTRY OF HEALTH CARE OF THE REPUBLIC OF KAZAKHSTAN  
FOR COMPLIANCE WITH THE STANDARDS OF ACCREDITATION OF  
EDUCATIONAL PROGRAMMES OF POSTGRADUATE EDUCATION  
(SPECIALTY OF RESIDENCE) IN MEDICAL EDUCATIONAL  
ORGANIZATIONS**

**external expert evaluation period: December 6 – 8, 2021**

**Nur-Sultan city, 2021**

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## LIST OF SYMBOLS AND ABBREVIATIONS

SCES - State Compulsory Education Standard  
Department - Department of Education  
ECAQA - Non-profit institution "Eurasian Center for Accreditation and Quality Assurance in Higher Education and Health"  
DET - Distance Educational Technologies  
FSA - final state attestation  
IEP - individual educational plan  
RW - research work  
QED - catalog of elective disciplines  
MoH RK - Ministry of Health of the Republic of Kazakhstan  
MES RK - Ministry of Education and Science of the Republic of Kazakhstan  
PGE - postgraduate education  
PD - professional development  
RT - retraining  
PPP - faculty  
EP - educational programmes  
WC - working curriculum  
NCIE - National Center for Independent Examinations  
NCN - National Center for Neurosurgery  
QMS - quality management system  
RIWT – resident’s independent work with a teacher  
RIW - resident’s independent work  
EMC - educational and methodological council  
EMCD - educational and methodological complexes of disciplines  
GPA - Grade Point Average - the arithmetic mean of the grades received for all completed courses, taking into account the time spent on them  
JCI – Joint Commission International

## 1. Composition of the External Expert Commission

In accordance with ECAQA Order No. 31 dated November 23, 2021, an External Expert Commission (hereinafter referred to as the EEC) was formed to conduct an external assessment during the period December 06-08, 2021 as part of the accreditation of an educational programme in the specialty 7R01137 Neurology, adult, pediatric, in the following composition:

No. p / p	Status in the EEC	Full name	Regalia, position, place of work / place of study, course, specialty
1	Chairperson	Madyarov Valentin Manarbekovich	Doctor of Medical Sciences, Head of the Department of Surgery with the course of anesthesiology and resuscitation of the National Educational Institution "Kazakhstan-Russian Medical University"
2	foreign expert	Urmanbetov Kubatbek Samoybekovich	MD, senior researcher Research Institute of Cardiac Surgery and Organ Transplantation of the Ministry of Health of the Kyrgyz Republic
3	Kazakh academic expert	Nurmukhambetova Baktygul Rakhimbekovna	Candidate of Medical Sciences, Assistant of the Department of Nervous Diseases, NJSC "Asfendiyarov Kazakh National Medical University"
4	Employers' representative	Dautov Tayrkhan Bekpolatovich	Doctor of Medical Sciences, Head of the Department of Radiology and Nuclear medicine JSC "National Scientific Cardiac Surgery Center
5	Listener representative	Askanbekov Maksat Bakytuly	Resident of NJSC "Astana Medical University"

ECAQA Observer - Umarova Makpal Aldibekovna, Head of Accreditation and Monitoring Department.

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 7R01137 Neurology, adult, pediatric for compliance with the Standards for Accreditation of Postgraduate Education Programmes (Residency Specialties) of Medical Educational Organizations and conclusions (hereinafter referred to as the Accreditation Standards), recommendations of the EEC for further improvement of approaches and conditions for the implementation of the above educational programme and recommendations to the ECAQA Accreditation Council.

## 2. General part of the final report

### 2.1 Presentation of JSC "National Center for Neurosurgery" and educational programme 7R01137 Neurology, adult, pediatric

Organization name, legal form of ownership, BIN	JSC "National Center for Neurosurgery" (hereinafter referred to as the "Company")
Full name of the first head	Akshulakov Serik Kuandykovich

Location and contact details	Republic of Kazakhstan, 010000, Yesil district, Nur-Sultan. Turan Ave. 34/1.
Information about branches, subsidiaries (if any)	-
The total number of educational programmes, separately for additional and non-formal education	2 residency programmes (7R01120 Neurosurgery, adult, pediatric; 7R01137 Neurology, adult, pediatric). 10 programmes of additional and non-formal education
The total number of trained residents in the specialty of the educational programme since the beginning of activity	40 neurosurgeons <b>12 neurologists</b>
Total number of residents in the 2020-2021 academic year	<b>19</b> in neurosurgery <b>9 in neurology</b>
Full-time teachers/ part-time workers	Full-time teachers - 7, part-time teachers - 4. Clinical mentors in neurosurgery - 6, <b>in neurology - 5</b>

The training of residents in the "Company" is carried out in accordance with the State License of the Committee for Control in the Sphere of Education and Science of the Republic of Kazakhstan dated August 25, 2017 No. KZ61LAA00010064 (date of initial issue "01" July 2009) for postgraduate education. The implementation of residency programmes is carried out in 2 clinical specialties.

From 2008 to 2020 based on "Society" trained 12 neurologists (see table below). The quality and demand for residency graduates is determined by a fairly high level of their employment (100%).

<b>years of education</b>	<b>Quantity</b>
2015-2017	3
2016-2018	3
2016-2019 (academic)	1
2017-2019	-
2018-2020	-
2019-2021	5
Total	12

The total number of students in 2020-2021 academic year amounted to 28 residents, including in the specialty **7R01137 Neurology, adult, pediatric - 9 people** as shown in the table below:

<b>years of education</b>	<b>Quantity</b>
2020-2022	5
2021-2023	4
Total	9

The lecturers are highly qualified specialists, doctors and candidates of medical sciences, doctors of the highest category with experience in clinical work and teaching, who have been trained in the best centers and clinics in the world.

The teaching staff (hereinafter - the teaching staff) of the "Society" is represented by 1 academician of the National Academy of Sciences of the Republic of Kazakhstan, 1 academician

of the National Academy of Natural Sciences of the Republic of Kazakhstan, 3 doctors of medical sciences, 18 candidates of medical sciences, 4PhD, 5 masters, 18 specialists of the highest category. Employees of the "Society" are members of the following international associations: World Federation of Neurosurgical Societies (WFNS), European Association of Neurosurgical Societies (EANS), Asian Association of Neurosurgical Societies (AANS), European Association of Pediatric Neurosurgeons, Eurasian Association of Pediatric Neurosurgeons, Russian Society of Pathologists , as well as republican associations: the Kazakh Association of Neurosurgeons, the Federation of Anesthesiologists-Resuscitators of Kazakhstan, the Association of Pediatric Neurologists of Kazakhstan, the Association of Physicians of Neurophysiologists and Neuroimaging Specialists of Kazakhstan.

In 2012, the Scientific and Information Center named after A.N. Konovalov, which is a modern library format. Its tasks are to promote the activation of the intellectual potential of medical workers and the multiplication of information resources, as well as the formation of a qualitatively new, adequate to the expectations of users of the library service system.

On the basis of the Society, since 2004, the scientific and practical journal "Neurosurgery and Neurology of Kazakhstan" has been quarterly published, which is a scientific and informational and analytical publication that publishes materials on neurosurgery, neurology and other areas of neuroscience and related disciplines. All articles published in the journal are posted on the journal's own information portal [www.neurojournal.kz](http://www.neurojournal.kz).

Since December 2014, the Journal has been included in the List of publications approved by the Committee for Control in the Sphere of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan for the publication of the main results of scientific activity (the list of HAC). The journal is also indexed in such international scientific information databases as [Russian Science Citation Index](#), [Cyberleninka](#) and [OpenAcademicJournalIndex](#).

In 2019, the Society passed a three-year JCI re-accreditation.

The Society maintains friendly and partnership relations with the largest neurosurgical clinics in the world - the USA, Germany, Israel, France, Turkey, CIS countries, etc.

## **2.2 Information about previous accreditation**

To date, accreditation of the educational programme 7R01137 Neurology, adult, pediatric was not carried out.

## **2.3 Conclusion on the results of the review of the report on the self-assessment of the educational programme 7R01137 Neurology, adult, pediatric for compliance with the Standards of educational programmes for postgraduate education (specialty residency) and conclusions**

Report on self-esteem educational program 7R01137 Neurology, adult, pediatric (hereinafter referred to as the report) presented on 125 pages of the main text, annexes in the form of copies and electronic versions of documents located at the link <http://www.neuroclinic.kz>, [https://www.neuroclinic.kz/for\\_specialists/science/s\\_publications/](https://www.neuroclinic.kz/for_specialists/science/s_publications/).

The report is characterized by the completeness of answers to all 9 basic accreditation standards and criteria, structuredness taking into account the recommendations of the Guidelines for the self-assessment of the educational programme provided to the educational organization by the accreditation center - ECAQA, as well as the internal unity of information.

Preparation for specialized accreditation JSC "National Center for Neurosurgery" was carried out on the basis of Order No. 08-2/3 dated March 10, 2021 "On the establishment of a working group to prepare for specialized accreditation".

The composition of the working group for the preparation for accreditation of the educational programme of residency in the specialty 7R01137 Neurology, adult, pediatric JSC National Center for Neurosurgery includes employees: pchairman - Doskaliev Aidos Zhaksylykovich - Acting Director for Strategy and Science, Chairperson of the working group, as well as 25 members, including 2 residents (Baymukhanov Dauren, resident in the specialty "Neurosurgery, including pediatric" 4th year of study;

Valieva Kamila, resident with a degree in Neurology, **Including children's» 2nd year of study**).

Accompanying the report is signed letter Chairperson of the Board of the National Center for Neurosurgery Academician Akshulakov S.K., confirming the validity of the quantitative information and information included in the self-assessment report.

The report contains a list members 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: Serikpaeva Altyngul Abylaevna, head of the education department.

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

Standards	Reviewer recommendations
1	No links to state programme, resolution, on the orders of the Republic of Kazakhstan and the MES RK
2	code 6R111500 change to current
3	Disinfectants, work schedule?
4	(1.1.5) Rehabilitation methods and methods of material support to be finalized.
5	1.2.2 there are no references to orders and decisions
6	specialty code missing
7	2.4.2. no link to SCES
8	in which journal the residents' assessments are given, specify
9	What are the implementation programmes based on?

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

All standards reflect real practice JSC National Center for Neurosurgery for the preparation of residents in the specialty **7R01137 Neurology, adult, pediatric** taking into account the start of admission of students v 2017, 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. Description in the self-assessment reports is sufficiently completed and up-to-date the number of residents, teachers, administration, information on selection and admission, learning outcomes, results of assessment of knowledge and skills, the material and technical base of the university and clinical bases, contractual obligations with partners (universities, associations, bases), financial information, development plans and improvement, etc

The report is submitted to ECAQA in a final form, with data adjusted according to the above recommendations, written in competent language, the wording for each standard is clear and understandable and described in accordance with the criteria of the standards, tables and drawings (diagrams, photographs) contain references in the text and have continuous numbering.

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

### **3. Description of external expert evaluation**

External expert work in the framework of the evaluation of the educational programme of postgraduate education (specialty residency) was organized in accordance with the Guidelines for the external evaluation of educational institutions and educational programmes of ECAQA (approved by 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 according to the programme approved on November 8, 2020 by ECAQA Director General Sarsenbayeva S.S. and agreed with the chairperson of the board of the "Society" acad. Akshulakov S.K. Dates of the visit to the organization: December 6-7, 2021

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 the accreditation standards.

The sequence of the visit within 2 days is detailed in the Visit Programme (hereinafter referred to as the programme), which is located in the documentation of the accreditation center and in Attachment 3 to this report. The programme is proof of the implementation of all planned activities within the framework of an external expert evaluation.

A foreign expert, MD, prof. Urmanbetov Kubatbek Samoybekovich, Kyrgyz Republic.

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

- interviews with management and administrative staff - only 11 people;
- interviews with residents – 32 people
- website exploration <http://www.neuroclinic.kz>, [https://www.neuroclinic.kz/for\\_specialists/science/s\\_publications/](https://www.neuroclinic.kz/for_specialists/science/s_publications/).
- interviewing 21 employee, incl. 5 teachers;
- questioning of teachers and residents - 11 and 27, respectively;
- observation of the training of residents: visiting practical lesson on the topic "Brain Tumors" for residents of the 1st-2nd year of study in the specialty "Neurosurgery", teacher Mustafin Khalit Abdimazhitovich.
- review of resources in the context of fulfilling accreditation standards: visited the main base of training and practice - departments of rehabilitation, neurology, neuroimaging, simulation center, library of the National Center for Neurosurgery.
- study of educational and methodological documents in quantity 23 units both before the visit to the organization and during the visit to the departments (the list of documents examined is in Attachment 2).

On the part of the staff of the accredited organization, the presence of all persons indicated in the visit programme and according to the lists of interview sites and interviews was 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.	Akshulakov Serik Kuandykovich	Chairperson of the Board
2.	Pazyzbekov Talgat Turarovich	Medical Director
3.	Doskaliyev Aidos Zhaksylykovich	Acting Director for Strategy and Science
4.	Baizhumanova Aiman Takenovna	CFO
5.	Kistaubaev Bakhytzhan Aitpaevich	Head of planning and economic department
6.	Akhmetova Asiya Sagidollaevna	Head of Human Resources Management and Human Resources Department
7.	Zverinsky Dmitry Bronislavovich	Chief specialist of the service and economic department
8.	Serikpaeva Altyngul Abylaevna	Acting deputy head of education department
9.	Kamalova Zulfiya Khasinovna	Chief Specialist of the Education Department
10.	Sadykov Askar Murzakhanovich	Head of the Scientific and Educational Simulation Center
11.	Solodovnikov Makar Petrovich	Head of Research Management Department



12.	Kaztaeva Raushan Mazhitovna	Head of the Sector of International Cooperation and Public Relations
13.	Nurmanova Saule Amangaleevna	Chief Specialist of the Department and Strategic Development
14.	Mustafin Khalit Abdimazhitovich	Candidate of Medical Sciences, Associate Professor (Associate Professor), PhD Acting deputy Head of the Department of Neurosurgery and Neurology
15.	Mustafayev Baglan Satylkhanovich	Candidate of Medical Sciences, PhD. Doctor of the highest category Lecturer, Department of Neurosurgery and Neurology
16.	Eszhanova Laura Erkenovna	Lecturer, Department of Neurosurgery and Neurology
17.	Olenbai Gabit Iliyasyuly	Physician, Head of the Department of Pediatric Neurosurgery
18.	Ryskeldiev Nurzhan Amirbekovich	Candidate of Medical Sciences, Professor Head of the Department of Neurosurgery
19.	Kaliev Asylbek Baktybekovich	PhD, Head of Hospital Management Department
20.	Mustafayeva Alina Sabitovna	Candidate of Medical Sciences, PhD, Head of the Department of Neurorehabilitation
21.	Kerimbaev Talgat Tynyshpaevich	Head Department of Spinal Neurosurgery, PNS Pathology

Thus, when implementing the programme activities, namely, based on the results of an interview with the first head of the organization, members "*Working groups for the preparation for the passage of specialized accreditation*", 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 formulating the mission, while the mission was brought to the attention potential residents through the website, social networks, newsletters to medical organizations. The strategic plan of the organization for a period of 5 years was reviewed, including the development of educational and professional work in such areas as "neurosurgery" and "neurology", which confirms fulfillment of the accreditation standard and demonstrates the goals, objectives and prospects of the organization. From interviews with residents, it was found that before the start of classes, teachers inform about the mission, work plans of the educational organization, they say where to get the necessary information about the educational programme, teachers, training bases (own and third-party). This indicates compliance with **standard 2** in terms of adapting training to the needs of residents.

The documents of the organization contain work programmes, EMCD, where the goal is defined, the integration of practical and theoretical components, independent work is taken into account. Compliance with SCES and standard requirements was established. Attending a practical session on the topic "*brain tumors*", experts considered the knowledge and skills of resident neurologists from the standpoint of a differential diagnosis with various neurological diseases and the future rehabilitation of the operated patient. the classes were attended by resident neurosurgeons and resident neurologists, creating an interprofessional team to solve the problems of diagnosis, choice of management tactics and rehabilitation of a patient with a brain tumor.

Also attended a seminar on the topic "*The effectiveness of surgical treatment and the use of drugs for Herpes zoster*", organized for residents-neurologists. It has been established that the training is carried out according to the plan, before the start of the lesson, the residents answer tests, receive feedback from the teacher. "Society" enforces ethical aspects in the implementation of the educational

programme, as the experts studied the code of ethics of employees, and during interviews, residents responded that they were aware of the contents of this document.

When attending a practical lesson, the experts saw that the "Society" contributes to the development of practical competencies of residents, including on simulation equipment. At the same time, residents deepen their theoretical knowledge, develop communication skills, including the issues of informing the patient about a dangerous disease and consent to surgery.

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

The study of control and measuring tools (50 tests, 30 tasks) showed that the "Society" has implemented an appropriate assessment policy that allows for a comprehensive assessment of the educational achievements of residents. During the interview, the residents spoke about the assessment forms and that they are satisfied with them, and also receive regular feedback from teachers. The procedure for the work of the appeal commission is approved in the Rules for organizing the educational process in residency "Societies" dated July 14, 2020 No. 19. For 2017-2021, during the final state atestation (FSA), residency graduates did not file any appeals. Thus, compliance with standard 3 is established.

During the visit "Societies" and during an interview with the head of the education department Serikpayeva A.A., the commission was convinced that there is a documentation system that transparent and accessible to all faculty and staff, and includes documents such as annual operating plans, annual reports, division regulations, contracts with faculty and residents, and educational and methodological documentation (work programme, working curricula, syllabuses, journals), evaluation means (check-lists, statements), certificates, certificates and certificates. A review of the website showed that its pages contain documents necessary for residents and have information that is regularly updated. This information was obtained from an interview with Doskaliyev A.Zh., acting director of strategy and science. Conversation with him allowed experts to learn about approaches to attracting staff of clinical sites for teaching (total of such teachers 4 of a person and at present they are included in the department's sheet), on the strategy and tactics of recruiting residents, information support of the educational programme, as well as identify problems in the management and development of human resources, since most part-time workers do not know the teaching methods.

Interview with 5 teachers, including 2 regular, showed that there are both successes and problems in the management of education, depending on the specific clinical department and the activity and initiative of the resident (the admission of residents to the equipment, a sufficient number of thematic patients, time to maintain medical records, independent work). The experts received answers about the programme for advanced training of teachers, the financing of this training, the lack of certification for teachers in teaching methods for this period.

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

For the purpose of data verification **standard 5**, external experts received information on the personnel policy and approaches to the development of the pedagogical competence of teachers, motivation to work with residents, and mentoring. Experts found that teachers initiate research topics for residents, stimulate the need for additional training and independent work with literature and medical records. During the visiting departments of the "Society", where the experts were convinced of the modernity and availability of equipment, the participation of residents in clinical rounds and clinical reviews of patients, working with a large amount of documentation, prescribing examinations and treatment, interpreting the results of the examination (reading X-ray images, tomograms, encephalograms), conducting conversations with patients, the availability of rooms for residents to work. The Department of Neurology, Neurorehabilitation, Department of Neuroimaging, Library, Test Center, and exercise therapy room were visited. That. resources are sufficient and correspond to the disciplines of the educational programme. Experts obtained evidence of compliance with standard 6.

In order to validate the implementation of the data of the self-assessment report and obtain evidence of the quality of the programmes, interviews were conducted with 3 residents in the specialty "neurology". The experts asked questions about satisfaction with training, enough time to supervise patients, work at DAMUMED with medical records, satisfaction with teaching methods and qualifications of teachers, social and moral support for residents who need it, participation in the Journal Club, availability of resources from international databases of professional literature.

Visited the "Journal Club" where resident neurologists analyzed the topic "Cognitive Impairment. Alzheimer's Disease, Oligomers, and Inflammation". Keynote speaker Valieva K.R., resident of the 2nd year in the specialty "Adult and pediatric neurology." The experts assessed the activity of residents, the presentation of material in English, the choice of topic and its relevance, as well as the opportunity to study the problem in more depth in this way.

In general, residents are satisfied with the training, assessment methods, and purposefully entered this organization, as they believe that the "Society" excellent resources, a lot of modern equipment, well-known specialists in the country and the world, image and international relations, at the same time, residents would like more independence in managing patients and participating in operations, examining patients, and also expect help from the management of the "Society" in organizing participation residents in international conferences.

The experts studied the documents of the residents (portfolio, the results of the assessment of residents-check-lists, the results of the survey of residents).

Interview with 2nd employers carried out in the mode offline and included such issues as: knowledge of the mission of the "Society", participation in the development of the mission and proposals for the strategic plan, participation in the work of advisory bodies, satisfaction with the basic knowledge and skills of residents, participation in the training of 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 graduates of 12 graduates of the educational programme.

A sufficient number of thematic patients is provided, modern equipment and demonstrates accessibility to students, and employees who simultaneously act as teachers and curators (mentors) provide 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 should acquire and develop during the training.

For a better assimilation of the programme, one should develop programmes of elective disciplines for residents in the specialty "Neurology". Also to motivate the work of mentors to the "Society" a provision on mentoring should be developed and implemented. To improve the educational process, teachers of the department need to undergo regular advanced training in pedagogy, psychology, communication skills, as well as involve qualified employees in teaching, and when forming groups, take into account the ratio of teachers to students -1: 3.

The EEC members carefully studied and evaluated the main indicators of the accredited educational programme. All the information received was compared with the data of the self-assessment report, the reliability of information for each criterion of the accreditation standards was carried out and the indicators of the Attachment to the self-assessment report were verified, which made it possible to verify the reliability of the information provided by the university and confirming 23 documents for compliance with the ECAQA Accreditation Standards.

On the last day of the visit to the organization, a meeting of the members of the EEC was held following the results of the external evaluation. A final discussion of the results of the external evaluation of the educational programme, the study of documents, the results of interviews, interviews, and questionnaires was held. EEC members have begun drafting the final report of the EEC. Generalizations of the results of the external evaluation are made. The experts individually completed the "Quality Profile and External Evaluation Criteria educational programme 7R01137 Neurology, adult, pediatric for compliance with ECAQA Accreditation Standards". Recommendations for improving the

educational programme were discussed by the chairperson Madyarov V.M. a final open vote was held on recommendations for the ECAQA Accreditation Council.

Comfortable conditions were created for the work of the EEC, access to all necessary information and material resources was organized. The Commission notes the high level of corporate culture of JSC "National Center for Neurosurgery" to the members of the EEC.

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

#### **4. The results of the survey.**

Observer from ECAQA in the period from 06 to 08 December 2021. an online survey was conducted on the resource <https://webanketa.com/>.

**Survey of residents includes 22 questions.** 27 people answered. 92% of the respondents fully agree that they will recommend studying in this educational organization to their acquaintances, friends, relatives, 7.41% (2 residents) partially agree. Fully agree with the statement that teachers are aware of the problems of residents related to education - 96.3%, partially - 3.7%.

100% of respondents believe that programme managers and teachers involve students in independent work. 88.89% of respondents are completely satisfied with the conditions and equipment of the training rooms and audience of this organization, partially 11.11% (3 residents). 96.3% of respondents answered that they have access to equipment for mastering practical skills, 3.7% did not fully answer. 100% of respondents are provided with educational literature, and 70.37% confirmed that they are engaged in scientific work under the guidance of their teacher or mentor, 22.22% are planning research, 7.41% have not yet decided.

96.3% of respondents confirmed that they have enough time for practical training, and 3.7% agreed partially. Satisfied with the schedule of training sessions in the disciplines of the educational programme of 96.3% of residents. 92.59% of respondents answered that teachers in the classroom regularly use active and interactive teaching methods, sometimes 7.41% answered.

According to the results of the survey, 100% answered that after the completion of classes, the teacher constantly conducts feedback with them. When asked about the number of seminars that are held during the month as part of the residency programme, 29.63% answered that seminars are held once a week, 22.22% answered that two or three times a week, 7.41% - are held daily, 3.7% believe that it is very rare.

100% of residents are sure that this educational organization allows you to acquire the necessary knowledge and skills in the specialty. Out of all respondents, 92.59% rate the organization of clinical training excellently, 7.41% gave a good impression. We fully agree that the teacher (mentor, curator) of this educational organization is an example for them as a professional doctor, a person, 100% of the residents.

100% of respondents are completely satisfied with the number of patients for curation.

The majority (88.89%) of respondents believe that accreditation of an educational institution and educational programmes is an important and necessary mechanism for ensuring the quality of education in residency, 7.41% doubt the answer, 3.7% do not know what it is.

74.07% of residents believe that an interview with the university management is the most important tool for external expert evaluation, 33.33% chose the option "interview with teachers", 25.93% consider interviews with residents as such, 18.52% answered in favor of interviews with mentors of residents, 18.52% - interviews with university graduates, 11.11% - review of the resource base for training residents, 3.7% - attendance at practical classes and seminars. Conclusions: in their responses, residents generally expressed satisfaction with the organization of education, as well as the conditions of education, access to equipment, time for practical training, the number of patients for curation, and the organization of teaching.

**The survey of teachers included 21 questions of the questionnaire.** 11 people responded, including 4 full-time teachers. Teaching experience up to 5 years - 18.18%, up to 10 years - 63.64%, over 10 years - 18.18%.

Fully satisfied with the organization of the educational process 90.91%, partially - 9.09%. According to the survey, 81.82% of teachers fully agree that ethics and subordination are respected, the remaining 18.18% believe that it is partially.

90.91% of respondents are completely satisfied with the organization of labor and the workplace, 9.09% are partially satisfied. There is an opportunity for career growth and competence development for teachers in the organization: they fully agree - 100%, 100% of respondents fully agree that teachers in this educational organization have the opportunity to engage in scientific work and publish research results.

According to the results of the survey, 81.82% of respondents are completely satisfied with the salary. 27.27% confirmed that they personally participate in the development of methodological materials for the residency programme, 72.73% participate partially.

90.91% of respondents studied at professional development courses from 1 to 5 years ago, 27.27% are engaged with residents on a daily basis, only clinical training -72.73%.

00% of teachers fully agree that they can be realized as professionals in their specialty in this educational organization.

90.91% of respondents fully agree that the organization has enough equipment and resources to conduct training for residents under accredited programmes, 9.09% agree partially.

90.91% of the respondents are completely satisfied with the work of the department of postgraduate education, 9.09% - partially.

Regarding participation in conferences (international, republican), 9.09% did not contact the management about this, 81.82% answered that the organization supported their participation by paying for travel, travel, registration fees, 9.09% found sponsors.

The majority of respondents (100%) fully agree that residents have free access to patients at clinical sites and all conditions for improving practical skills.

The teachers answered that during the classes, they have a syllabus and EMCD (90.91%), control and measuring tools (72.73%), cases (80.81%), an educational journal (81.82%), monographs (27.27%), a journal registration of workings (63.64%).

The level of previous training of residents upon admission to training programmes fully satisfies 46.45% of respondents, partially - 45.45%, 9.09% did not give an answer.

72.73% know about the implementation of social programmes to support teachers, 27.27% do not know about it. Of all 11 respondents, 72.72% note that the management of the organization systematically listens to the opinion of teachers regarding questions on the educational process, research, clinical work, 18.18% believe that sometimes, 9.09% did not give an answer.

In the process of training residents, a variety of teaching methods are used, but more often analysis of situational problems (72.73%), compiling and solving cases (54.55%), work in small groups (54.55%), problem-based learning (63.64%), interactive learning (54.55%). %), oral questioning of students (54.55%), oral discussion of the topic (27.27%), test solving (36.36%), practical training in clinical skills in the training and clinical center (81.82%).

72.73% of respondents fully agree that this survey is useful for developing recommendations for improving the key activities of this organization, 27.27% partially agree with this.

Of all respondents, 81.82% believe that the accreditation of educational programmes is an important and effective mechanism for ensuring the quality of postgraduate education, 9.09% did not understand what accreditation is, 9.09% expressed the opinion that yes, it is, but in combination with other mechanisms (attestation, audits, independent assessment of students' knowledge).

**Conclusions:** The survey showed that most of the teachers surveyed are satisfied with the organization of the educational process, observance of ethics and subordination, organization of labor and workplace, opportunities for career growth, the opportunity to engage in scientific work and publish research results. The results of the survey are presented in the Attachment and 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 educational programmes.

## **5. Analysis for compliance with the standards of accreditation of the educational programme 7R01137 Neurology, adult, pediatric**

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

#### **Evidence of Compliance:**

The mission of the educational programme of the specialty 7R01137 is "Neurology, including children's" is aimed at realizing the mission of the society by training a qualified neurologist with a system of universal knowledge and professional competencies, capable and ready for independent professional activity in the treatment of neurological diseases. Residency programme are implemented in accordance with the Rules for organizing the educational process in the residency of the "Company", approved by the decision of the Board of the "Company" (Minutes No. 19 dated July 14, 2020). The educational programme 7R111500 - "Neurology, including children's" contains theoretical and practical components that enhance the clinical training of the resident.

Resident training takes place in 4 scientific and medical centers of the city of Nur Sultan, where there are consultative, diagnostic, rehabilitation, inpatient departments, as well as modern medical equipment for medical and diagnostic measures. Residency training comes with an emphasis on practice, so theoretical training is 10%, clinical work - 75%, independent work - 15%. When working with residents, training is carried out using updated clinical protocols, treatment recommendations, own and borrowed implementations in clinical practice. The mechanism of mission awareness both vertically and horizontally has been worked out in a clearly structured way: the opportunity to train residents on the basis of the leading medical and preventive institutions in Nur-Sultan contributes to the implementation of the mission and final results.

Taking into account that many employees are JSC "National Center of Neurosurgery" members of various professional associations, their involvement in the development of the mission, strategy and tactics of educational activities makes a significant contribution to the improvement of all these issues.

Currently in residency in the specialty 7R01137 "Neurology, including children's" 9 residents are studying. The effectiveness of the educational programme is evidenced by 100% employment.

***Conclusions of the EEC according to the criteria.*** Out of 17 standards conform: fully -15, partially -2, do not comply - 0.

***Standard 1: completed***

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

1. When updating the mission of the educational programme, take into account the needs of the "Society" in the provision of medical care and issues of social responsibility of the organization implementing postgraduate education.

### **Standard 2: EDUCATIONAL PROGRAMME**

#### **Evidence of Compliance:**

The educational programme is characterized by consistency, transparency, and is based on the identified learning outcomes of residents and the qualifications they acquire, which are consistent with the residents' competency model (patient care, communication and validity, safety and quality, public health; research, learning and development).

The qualification obtained as a result of mastering the educational residency programme corresponds to the level of the national qualifications framework in medical education and the Qualifications Framework in the European Higher Education Area (ESG 1.2).

The use of oriented training practices contributes to the formation of responsibility when working with patients with the personal participation of residents in the provision of medical care, independent and active learning.

The structure of the educational programme is structured in accordance with the SCES 2017.2020. and provides the necessary level of training for residents to achieve the expected learning outcomes. The sequence of studying disciplines, the rational distribution of disciplines by semesters allows you to evenly distribute the educational work of the resident. Residency admission is carried out taking into account the needs of specialists and in 2020 for the programme "Neurology" according to the state order, 5 places were allocated, in 2021 - 4 places.

Compliance of the bases of practice and clinical bases for the training of residents is carried out in accordance with the agreements, the clinical bases are jointly and severally responsible for the quality of training of future specialists, providing departments with high-quality training facilities, providing residents with access to patients and modern diagnostic equipment. Due to the availability of clinical sites for residents, they spend most of their study time in close contact with patients, medical records, including automated health care systems. Mentors teach residents how to work with the latter.

The resident training programme provides for the implementation of various forms of teaching and research work, while some residents are involved in the implementation of research projects carried out by teachers. Resident mentors are appointed annually by order. Each mentor is assigned no more than 3-4 residents. Thus, during the visit to the JSC "National Center for Neurosurgery", the experts established compliance with the fulfillment of the basic criteria of the accreditation standard.

In total, according to the accredited educational programme, there are 5 mentors in clinics that operate in accordance with the Regulations on Mentors. There are no precedents for inequality, lack of ethics or other violations of a gender, cultural and religious nature in the process of external evaluation. Thus, the educational programme of the residency in the specialty 7R01137 - "Neurology, adult, pediatric" demonstrates the integration of education and the provision of medical care.

***Conclusions of the EEC according to the criteria.*** Out of 30 standards conform: fully -27, partially -3, do not meet - 0.

***Standard 2: completed***

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

1. Provide documentation of the process of development, approval and regular updating of programmes of elective disciplines, taking into account the current needs of practical health care and scientific achievements. When developing programmes for elective disciplines, take into account the opinion of residents based on regular feedback.

2. Strengthen the educational programme by introducing a scientific component into the elective component.

3. Develop a mentorship policy and enforce its requirements.

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

#### **Evidence of Compliance:**

Assessment of educational achievements of residents is carried out using criteria, regulations and procedures developed in accordance with the goals and objectives for the implementation of educational in accordance with external and internal regulatory RK documents.

According to internal rules, residents are provided with a guidebook [https://www.neuroclinic.kz/for\\_specialists/Education/rezidentrura/rezidentam/spravochnik-putevoditel/](https://www.neuroclinic.kz/for_specialists/Education/rezidentrura/rezidentam/spravochnik-putevoditel/) for the entire period of study, a syllabus for the discipline, which also describes the principles and methods of assessing residents.

The results of students' achievements are displayed in paper journals. There is a formal procedure for consideration of appeals/appeals by residents. A resident who has completed the course programme in full, but has not scored the minimum transfer score, is given the opportunity to re-study individual disciplines in the summer semester on a paid basis and re-take exams in order to increase the average score. The resident's portfolio consists of the resident's report; evaluation and checklists with evaluation of practical activities, seminars, shifts, etc.; characteristics of the curator; information about



achievements during the period of study in residency, if any (awards, certificates, conference programmes, abstracts of publications, video materials, letters of thanks, patient reviews, etc.).

The final control of knowledge upon completion of each discipline is carried out in the form of an oral exam or in the form of testing and solving situational problems.

Intermediate attestation is carried out at the end of the academic period in the form of testing, to which residents who have completed the academic period in accordance with the requirements of WC and IEP, portfolio are allowed. Accounting and monitoring of assessment forms is carried out by the education department of the Society throughout the entire training. Verified assessment forms are kept in the resident doctor's portfolio.

The final control of knowledge upon completion of each discipline is carried out in the form of an oral exam or in the form of testing and solving situational problems.

To take a comprehensive exam, a State Attestation Commission (SAC) is formed by a resident of the Company, the quantitative composition of which is determined by the Companies independently and approved by order of the Chairperson of the Management Board. A comprehensive exam in the specialty is carried out in the form of testing and delivery of practical skills. The results of a comprehensive examination of a resident doctor are entered into the examination sheet, on the basis of which the IA protocol is drawn up. The average score of the resident doctor for all types of assessment is entered into the protocol and signed by the Chairperson of the State Attestation Commission.

Thus, during the visit to the JSC "National Center for Neurosurgery", the experts established compliance with the fulfillment of the basic criteria of the accreditation standard: the review of control and measuring instruments is carried out at several levels, the policy and methods for assessing residents are considered and approved at the meeting of the UMO, the methods for assessing residents are reflected in the required internal regulatory and legal documents, the assessment of the educational achievements of residents is carried out on the basis of meters of the level of completeness of competencies developed by the departments.

***EEC conclusions by criteria.*** Correspond from 11 standards: completely - 7, partially - 4, do not correspond - 0.

***Standard 3: completed***

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

1. Improving the monitoring of assessment methods when training residents on a third-party basis;
2. Wider use of IT technologies in the resident assessment system;
3. Availability of a trained tester to develop and review test questions.

#### **Standard 4: STUDENTS**

##### **Evidence of Compliance:**

The "Society" carries out systematic career guidance aimed at the selection and training of students who have consciously chosen educational programmes. The employment and career growth of graduates is constantly monitored, as well as interaction with employers in the field of improving the quality of training.

Every year, no later than December 30 of the corresponding year, residents undergo all types of briefings (internal training) in accordance with Attachment 16 PR-05-KOP-01 of the Company's Human Resources Management Programme. Ptraining sessions are conducted using distance technologies. To expand the technical capabilities in the visualization of various processes, the demonstration of which in real conditions is somewhat limited, multimedia technologies and capabilities are used.scientific and educational simulation center.

For the entire period of study in residency, each student is assigned a curator who provides the functions of an academic mentor, participates in the formation and implementation of an individual curriculum (IEP), in the choice of disciplines and teachers based on work with the catalog of disciplines and WC, supervises the clinical, educational student and mastering practical skills. Also, the curator can provide advisory assistance in solving future career issues, determining the base of industrial practice.



The curators carry out educational work with the residents assigned to them on the issues of improving their academic performance, discipline and attendance, attracting them to participate in the public life of the "Society".

For residents who cannot cope with academic requirements, work is organized at the level of the management of the "Society" and teachers. In accordance with the current rules for organizing the educational process in residency, an additional (summer) semester lasting up to 6 weeks is provided, during which residents are provided with academic support in preparing for exams.

To develop the intellectual level of students, expand knowledge in various scientific fields, they take an active part in master classes, conferences of the republican and international levels held by the "Society". In order to provide social support, the residents' rooms are provided in the guest house "Society", including 2 men's rooms for 6-8 people and 1 women's room for 3-4 people. Today, 6 residents live in the guest house. For physical and emotional unloading, there is a gym with a changing room and a shower. Residents undergo free medical examinations when issuing health books, fluorography.

Residents studying under the state educational order receive financial support in the form of scholarships.

Thus, during the visit to the JSC "National Center for Neurosurgery", the experts established compliance with the fulfillment of the basic criteria of the accreditation standard.

**Conclusions of the EEC according to the criteria.** Out of 30 standards conform: fully -30, partially -0, do not meet - 0

**Standard 4:** completed

**Recommendations for improvement identified during the external visit:** no.

## **Standard 5: FACULTY**

### **Evidence of Compliance:**

According to the SCES RK-2020, persons assigned to residents to master the necessary theoretical and practical skills are appointed from among the teaching staff of the Department of Neurosurgery and Neuropathology and / or practical health care workers of the first or highest qualification category with appropriate training in the field of medical education (regulated by the Rules of the organization educational process in residency, approved by the decision of the Board dated July 14, 2020 No. 19). The composition of teachers and curators is agreed with the Director of Strategy and Science, considered at the Academic Council, and approved by the Chairperson of the Board of the Society or a person authorized by him annually, taking into account a new admission for the corresponding academic year.

The degree of full-time employees in 2020 was 56.6%, in 2021 - 69.7%. Currently, 1 academician of the National Academy of Sciences of the Republic of Kazakhstan, 1 academician of the National Academy of Natural Sciences of the Republic of Kazakhstan, eighteen PhD, 3 MD, 5 PhD, 5 Masters of Science and eighteen doctors with the highest category.

Planning of educational and curatorial work of teaching staff carried out in According to typical educational programmes. Every year, in accordance with the Rules for organizing the educational process in residency, the work of a teacher, a curator is regulated, a list of teaching staff and curators is approved on the basis of the order of the head of the Society.

The right of doctors to be involved in teaching in residency is reflected in Job Descriptions. It should be noted that the specifics of residency programmes allow residents to be trained in clinical skills directly during the provision of medical and diagnostic procedures. The resident, as part of the clinical team, acquires the necessary knowledge and skills by actively participating in the daily life of the clinic. In addition, the teacher's work consists of lectures, seminars and practical exercises, including joint management of patients, rounds with a resident, joint participation in consultations, conferences, training on simulation equipment, preparation for a magazine club, discussion of a clinical case.

The curator's work is determined at the rate of 3 hours per week per resident, one curator leads no more than 3 residents at the same time. During the training, the resident conducts research work together with a scientific supervisor from among the doctors of the "Society".

Thus, during the visit to the experts of JSC "National Center of Neurosurgery", compliance with the basic criteria of the accreditation standard was established: the individual teacher's plan is the main document that regulates the activities of each teacher of the department and is compiled on the basis of the annual work plan of the department, a balance is maintained between the workload of clinical and teaching work. The requirements of the personnel policy for the teaching staff and teachers engaged in residency training comply with the Charter and the policy of providing personnel resources of JSC "National Center of Neurosurgery". A periodic assessment of the activities of teachers and mentors is carried out due to feedback from residents by means of a questionnaire.

**Conclusions of the EEC according to the criteria.** Out of 7 standards conform: fully - 5, partially - 2, do not correspond - 0.

**Standard 5: completed**

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

1. Expand the range of innovative teaching and learning methods used in the educational process, and provide teachers and mentors with regular improvement in teaching methods with documented results (certificates).

2. Update the plan for improving the professional and pedagogical competencies of teachers of the Department of Neurosurgery and Neurology and include training to improve communication skills and psychology.

## **Standard 6: EDUCATIONAL RESOURCES**

### **Evidence of Compliance:**

JSC "National Center of Neurosurgery" has a modern material and technical base for the training of students, which includes: classrooms, lecture halls, conference halls, library, computer lab, information technology facilities, scientific and educational simulation center, clinical bases. Lecture halls, conference halls are equipped with the necessary technical support - stationary multimedia projectors, video and audio equipment.

Agreements on the provision of a clinical base with 4 medical organizations of Nur-Sultan have been concluded. All clinical bases are equipped with modern educational and medical diagnostic equipment and equipment that ensure the conduct of the educational process at a high professional level.

The study rooms are equipped with the necessary cabinet furniture, teaching equipment, computers/laptops, stationary multimedia projectors for seminars/practical classes. To ensure the quality of personnel training, since 2017, 2 training halls equipped with modern equipment, operating microscopes, medical supplies, multimedia projectors, dummies and equipment for practicing practical skills have been functioning on the basis of JSC "National Center of Neurosurgery".

The A.N. Konovalov Scientific and Information Center, which is a modern library format, consists of a reference and bibliographic department and a reading room equipped with 7 computers connected to high-speed Internet, printers, copying and multiplying equipment and access to international databases.

JSC "National Center of Neurosurgery" was issued a GCP certificate for compliance with the requirements of appropriate pharmaceutical practices in the field of circulation of medicines for conducting clinical trials of medicines and bioequivalence studies of clinical trials of medical devices and medical equipment (November 2018).

According to the requirements of the educational programme, residents of JSC "National Center of Neurosurgery" conduct independent research, carried out under the supervision of a supervisor to develop the ability to independently generate and conduct research, interpret the results and comprehensively study the necessary literature. The resident's research determines the level of professional qualification of the resident, the degree of mastery of the methodology of scientific knowledge.

As of today, 15 research topics of 1st-year residents have been approved. At the beginning of 2022, it is planned to approve the topics of research works of residents of the 1st year of study.

JSC "National Center of Neurosurgery" systematically informs employees, residents about the news of scientific and practical medicine in the world (international and domestic competitions of scientific projects, grants for training, internships, conferences, symposiums, congresses, etc.), designated by the Ministry of Health of the Republic of Kazakhstan as priority areas in medicine.

Since 2015, employees of JSC "National Center of Neurosurgery" have carried out 5 scientific projects within the budget programme of the Committee of Science of the Ministry of Education and Science of the Republic of Kazakhstan 217 "Development of science", subprogram 102 "Grant financing of scientific research" and 013 budget programme of programme-targeted financing of the Ministry of Health of the Republic of Kazakhstan "Applied scientific research in the field of healthcare"

In order to promote regional and international exchange of teachers and students, joint work is carried out with such countries as Germany, Turkey, Uzbekistan, Kyrgyzstan, Russia, Switzerland, China, Japan, Israel, etc. (participation in Congresses, exchange of experience, exchange of specialists in certain areas). Work is being carried out to develop external relations with organizations of practical healthcare, education on the issues of advanced training of medical personnel in the field of healthcare and pharmacy.

In 2017-2019, employees of JSC "National Center of Neurosurgery" were trained abroad: 18 in 2018, 27 in 2019. 54.5% of them teachers. Residents did not study abroad.

Thus, during the visit to the experts of JSC "National Center of Neurosurgery", compliance with the basic criteria of the accreditation standard was established: clinical bases have all the conditions for providing primary, specialized and highly specialized care, as well as outpatient polyclinic service, Practical Skills Center, which allow for clinical training of residents and ensure rotation in the main clinical disciplines. All clinical bases have study rooms, lecture halls, and rooms for teachers.

**Conclusions of the EEC according to the criteria.** Out of 21 standards conform: fully -18, partially - 3, do not meet - 0

**Standard 6: completed**

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

1. Implement digitalization processes in the educational process (Platonus, Sirius, etc.)
2. Develop a mechanism for motivating and attracting residents to research activities in the specialty being trained.
3. Further intensification of work with international organizations, attraction of research grants.

## **Standard 7: EDUCATIONAL PROGRAMME**

### **Evidence of Compliance:**

Continuous monitoring of educational programmes is one of the tools that allows you to understand whether the goal of the educational process is being achieved, whether there is a positive trend in the development of students, whether the level of complexity of the educational material corresponds to the capabilities of students, and whether there are prerequisites for improving the work of teachers. The working curriculum is developed on the basis of the current NLA and guidance documents in the field of medical education, after which the developer of the programme reports it to the Academic Council, since 2019 to the EMC.

The WC is agreed on the content, structure, volume of hours and subjects of independent work of residents and, in the absence of comments, is approved by members of the collegial body.

In order to ensure the quality of educational programmes in JSC "National Center of Neurosurgery", an EMC was created, which includes teachers, from among the employees of the clinical unit, administrative and managerial personnel. The Regulation on the EMC was approved by the decision of the Board of JSC "National Center of Neurosurgery No. 40 dated 30.09.2019. At the end of the training, to determine the effectiveness of the programme, identify its strengths and weaknesses, and evaluate teaching methods, residents are surveyed. The Education Department monitors and analyzes the relevance of the implemented curricula, develops plans and determines prospects for the participation of representatives of practical healthcare in their compilation.

In order to continuously improve the level of teaching and administration of the implemented

educational programmes, an assessment form for residents that allows them to identify strengths and weaknesses in the organization and conduct of educational events.

The assessment of the residency programme for the 2020-2021 academic year showed that residents highly appreciate the training programme, teachers, curators, the work of the education department, logistics. The survey was conducted on the basis of a questionnaire approved by the UMS Protocol No. 1 dated January 22, 2020.

The opinion of residents is studied based on the results of a questionnaire, which is conducted after completion of training. The opinion of consumers of services - employers is studied when conducting surveys and coordinating regulatory documents, and studying their opinions on reforms in the health care system and medical education.

The results of the survey are analyzed and taken into account when conducting subsequent educational activities. The analysis of the survey results makes it possible to expand the training programmes on the most relevant topics, taking into account the reforms and changes being made, and additions to current regulatory legal acts.

Thus, during the visit to the experts of JSC "National Center of Neurosurgery", compliance with the basic criteria of the accreditation standard was established: a multi-level approach is used in the monitoring and evaluation of the OP, information is collected to study the effectiveness and adequacy of the EP according to monitoring data, feedback and the results of special studies in order to confirm the quality of education in relation to the mission and the established final learning outcomes. External experts and external organizations, including education, are involved to evaluate the educational programme. Based on the analysis of the identified problems, a corrective action plan is drawn up in order to create a safe and supportive environment for learning and feedback from teachers and residents.

**Conclusions of the EEC according to the criteria.** Out of 15 Standards conform: completely -14, partially - 1, do not meet - 0

**Standard 7: completed**

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

1. To carry out regular monitoring of the educational process and activities of the Department of Neurology and Neurosurgery by developing and implementing an annual intra-departmental control plan, including open classes, mutual visits to classes and examination of educational and methodological documentation. Document the results of all activities.

2. To optimize the conduct, processing and analysis of the results of feedback from residents, teachers, mentors and employers through the introduction of electronic questionnaires, followed by informing all participants of the educational process about the results and making improvements to the educational programme.

3. Involve foreign experts and partners to evaluate educational programmes.

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

### **Evidence of Compliance:**

In accordance with the Law of the Republic of Kazakhstan "On Education" and other regulatory legal acts regulating the activities of medical higher educational institutions, the "Company" has developed and approved internal documents regulating educational activities, defining the scope of duties and powers in relation to the residency educational programme:

- Rules for the organization of the educational process in the residency of the "Society", approved decision of the Board No. 19 dated July 14, 2020;

- Regulations on the educational and methodological council, approved by the decision of the Board of the "Society" dated September 30, 2019 No. 40.

- Guidelines on compiling teaching materials for postgraduate studies education, approved by the EMC from October 01, 2019 #1.

- Regulations on the teaching staff "Societies", approved decision of the Management Board of the "Company" dated February 19, 2020 No. 5.

"Society" fully complies with the qualification requirements for educational activities, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan dated June 17, 2015 No. 391 (with [changes and additions](#) as of 07/14/2021).

The procedure for admitting citizens to residency is established according to the order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600 (with [changes and additions](#) as of August 12, 2019) "On Approval of the Model Rules for Admission to Education in Educational Organizations Implementing Educational Programmes of Higher and Postgraduate Education".

The governing body is the Board and its Chairperson - Akshulakov Serik Kuandykovich, professor, doctor of medical sciences, academician of the National Academy of Sciences of the Republic of Kazakhstan, Laureate of the State Prize of the Republic of Kazakhstan in the field of science and technology, "Kazakhstannyn Yenbek Yeri".

The Board of Directors is functioning. Issues of residency and additional education are supervised by the acting director for strategy and science - Doskaliyev Aidos Zhaksylykovich.

Direct management of postgraduate and additional education programmes is carried out by the department of education.

The Company's development strategy includes adequate resources, the balance of costs has been assessed, risks have been identified, and critical points have been identified. There is a clear correspondence between the tasks of the "Society" and the planned activities at all levels of the organizational structure of management. The development strategy is based on an analysis of the main problems identified as a result of monitoring the scientific and educational process and assessing external and internal factors.

Sources of material resources are budget financing and extra-budgetary funds. To implement the strategy for the development of PGE and SPD programmes, the "Society" has sufficient information, telecommunications and library resources. The implementation of the strategic plan at the expense of these resources is aimed at improving the quality of educational services and creating favorable conditions for the activities of teachers, residents and students of additional education.

Financial and economic activity is aimed at ensuring financial stability and solvency for its obligations, at increasing income, wage stability, strengthening the material and technical base and is carried out in accordance with the legislation of the Republic of Kazakhstan.

Determining the financial and economic policy and management structure of the "Company" is the responsibility of the first head - the Chairperson of the Board. Financial matters are handled by the planning and economic department under the leadership of the financial director. The distribution of financial resources is carried out in accordance with the approved development plan for the current year. The development plan takes into account all activities, including the contingent residents. Every year, financial resources are provided for the provision of educational activities.

There is an appropriate administrative, managerial and teaching staff for the implementation of the educational programme, effective management and distribution of resources. They participate in the preparation and holding of international conferences, round tables, disputes and debates on the education of students. All issues related to the comprehensive development of residents are reflected in the Development Strategy and included in the work plans of structural divisions.

The participation of employees, teachers and students in the discussion of the mission and goals takes place in accordance with the existing procedure, which ensures the involvement of all interested parties, both at the planning stage and the implementation of the decisions made. The department of education is responsible for the effectiveness of the events.

The number of full-time units of clinical personnel is 46, of which 3 are foreign specialists, 73.9% have the highest category, 15.2% - the first. The staffing level of doctors is 81.8%. The number of doctors involved in the educational process is 43%.

The staff of the Department of Neurosurgery and Neurology is presented **7 employees: head of the department, 6 teachers of the department.**

According to the requirements of international accreditation (JCI), the “Company” has a quality management system service to monitor clinical performance and minimize medical errors, including those of students, which in turn improves the quality of training for residents. Since December 19, 2014, the Company has developed, approved and implemented quality management system in accordance with the requirements of ST RK ISO 9001-2009 “Quality management system. Requirements” (certificate of conformity KZ.O.02.0207 KCC No. 0028309), which coordinates the department of quality management and patient safety (OMK and BP).

The mechanism of interaction of the "Company" with the authorized bodies (Ministry of Health of the Republic of Kazakhstan, Ministry of Education and Science of the Republic of Kazakhstan) and the health care sector is regulated by: the legislation of the Republic of Kazakhstan; implementation of State programmes, Decrees and orders; contracts and agreements with health authorities; contracts and agreements with health care organizations.

The interaction of the "Society" with the Ministry of Education and the Ministry of Health of the Republic of Kazakhstan on the organization of the educational process in residency is carried out through the implementation of the SCES 2015, 2020 and is consistent with the priorities of the following national legislative and programme documents. "The Company carries out its activities in accordance with the regulatory documents of the Ministry of Education and Science of the Republic of Kazakhstan.

The Company continuously monitors and monitors regulatory and legal acts in the field of medical education, applying a policy of continuous improvement of the quality of services provided, which allows to eliminate inconsistencies in educational activities. Annual updating of internal documents is carried out. In case of changes in the staffing table, adjustments are made to the professional development plan of employees of the Department of Education.

Thus, during the visit to the National Center of Neurosurgery JSC, experts established compliance with the basic criteria of the accreditation standard: ensuring the quality of the educational process in the residency is determined by the fulfillment of mandatory requirements for the level of training of residents, educational programmes and the creation of a system for monitoring the effectiveness of the teaching staff and the implementation of the resident's IUP. Monitoring of the quality of the educational process is carried out by educational departments, members of the educational programmes committee, the Dean's office, independent experts through discussion. EMCD is located on the electronic databases of the University, is accessible, and is regularly monitored also due to feedback from residents and teaching staff

**Conclusions of the EEC according to the criteria.** Out of 15 standards conform: fully - 14, partially - 1, do not meet - 0

**Standard 8: completed**

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

1. To provide funding in the programme for the development of education in residency:
  - training of residents at alternative bases, where it is justified;
  - teacher mobility;
  - participation of residents and teachers in national and international professional events.
2. More efficient use of information and communication technologies in the management system.

## **Standard 9: CONTINUOUS RENEWAL**

### **Evidence of Compliance:**

The basis for making changes and additions to the educational programme are the measures taken in the industry to reform the health care system and medical education, the introduction of changes and additions to regulatory legal acts, standards and instructional documents.

“The “Society” periodically updates the organizational structure, the staff of the education department and the department, taking into account changes in the needs of practical health care, new legal documentation, and changes in the “Society”.

Every year, a plan is developed and approved to improve the skills of employees, including those abroad.

A consultative and advisory body has been created on issues of educational, methodological and organizational support of the educational process and continuous professional development of specialists – Educational and Methodological Council, approved by the decision of the Board of the "Company" dated September 30, 2019 No. 40.

"Society" seeks to respond in a timely manner to changing internal and external conditions. So, in connection with the epidemiological situation of COVID-19 in the past and current year, with the active use of distance technologies in the educational process, the professional ZOOM platform was used. Many educational events that are possible in a remote format have been transferred to this format: magazine clubs, lectures, project defenses, consultations, meetings on educational and methodological issues, etc. Residents were promptly provided with all necessary personal protective equipment.

Also, in connection with changes in the State Educational Standard of the Ministry of Health of the Republic of Kazakhstan in 2020, curricula and syllabuses for residents were revised, internal regulatory documents are being revised to bring them into line with the new established requirements.

The main tool for assessing the quality of education and monitoring the educational process is "360 degree survey".

**Conclusions of the EEC according to the criteria.** Out of 4 standards conform: fully - 3, partially - 1, do not meet - 0.

**Standard 9: completed**

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

1. Development and implementation of new methods and technologies for teaching CPD and residency programmes.

**6. Recommendations for improving the educational programme 7R01137 Neurology, adult, pediatric:**

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

1. When updating the mission of the educational programme, take into account the needs of the "Society" in the provision of medical care and issues of social responsibility of the organization implementing postgraduate education.

#### **Standard 2: EDUCATIONAL PROGRAMME**

2. Provide documentation of the process of development, approval and regular updating of elective discipline programmes, taking into account the current needs of practical healthcare and scientific achievements. When developing elective discipline programmes, take into account the opinion of residents based on regular feedback.
3. Strengthen the educational programme by introducing a scientific component into the component of choice.
4. Develop a regulation on mentoring and ensure compliance with its requirements.

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

5. *Improving the monitoring of assessment methods in the training of residents on a third-party basis;*
6. *Wider use of IT technologies in the resident assessment system;*
7. *Availability of a trained tester to develop and review test questions*

#### **Standard 4: STUDENTS**

none

#### **Standard 5: FACULTY**

8. Expand the range of innovative teaching and learning methods used in the educational process, and provide teachers and mentors with regular improvement in teaching methods with documentary evidence of results (certificates).
9. Update the plan for improving the professional and pedagogical competencies of teachers of the Department of Neurosurgery and Neurology and include training on improving communication skills and psychology.

**Standard 6: EDUCATIONAL RESOURCES**

10. Introduce digitalization processes into the educational process (Platonus, Sirius, etc.)
11. Develop a mechanism for motivating and attracting residents to research activities in the specialty being taught.
12. Further intensification of work with international organizations, attraction of research grants.

**Standard 7: EDUCATIONAL PROGRAMME**

13. To carry out regular monitoring of the educational process and activities of the Department of Neurology and Neurosurgery by developing and implementing an annual plan of intra-departmental control, including conducting open classes, mutual attendance of classes and examination of educational and methodological documentation. Document the results of all events.
14. Optimize the conduct, processing and analysis of feedback results from residents, teachers, mentors and employers through the introduction of an electronic questionnaire, followed by informing all participants of the educational process about the results and making improvements to the educational programme.
15. Involve foreign experts and partners to evaluate educational programmes.

**Standard 8: GOVERNANCE AND ADMINISTRATION**

16. To provide funding in the programme for the development of education in residency:
  - training of residents on alternative bases, where it is justified;
  - мобильности teacher mobility;
  - participation of residents and teachers in national and international professional events.
17. More effective use of information and communication technologies in the management system.

**Standard 9: CONTINUOUS RENEWAL**

18. Development and implementation of new methods and technologies for teaching NPR and residency programmes.



### **7. Recommendation to the ECAQA Accreditation Council**

The members of the EEC established the compliance of the educational programme in the specialty 7R01137 Neurology, adult, children of JSC "National Center of Neurosurgery" with the accreditation Standards and came to a unanimous opinion to recommend the ECAQA Accreditation Council to accredit this programme for a period of 5 years.

	full name
Chairperson	Magyarov Valentin Manarbekovich
Foreign expert	Urmanbetov Kubatbek Samoybekovich
Kazakh academic expert	Nurmukhambetova Baktygul Rakhimbekovna
Employers' representative	Dautov Tayrkhan Bekpolatovich
Resident Representative	Askanbekov Maksat Bakytuly

ECAQA Observer Umarova M.A.

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

Standard	Criteria for evaluation	Number of standards	Grade		
			Totally coincides	Partially Compliant	Does not match
1.	<b>MISSION AND END OUTCOMES</b>	17	15	2	
2.	<b>EDUCATIONAL PROGRAMME</b>	30	27	3	
3.	<b>ASSESSMENT OF STUDENTS</b>	11	7	4	
4.	<b>STUDENTS</b>	30	30	0	
5.	<b>FACULTY</b>	7	5	2	
6.	<b>EDUCATIONAL RESOURCES</b>	21	18	3	
7.	<b>EDUCATIONAL PROGRAMME</b>	15	14	1	
8.	<b>GOVERNANCE AND ADMINISTRATION</b>	15	14	1	
9.	<b>CONTINUOUS RENEWAL</b>	4	3	1	
	<b>Total:</b>	150	133	17	
			150		