To Accreditation Council of the Eurasian Center for Accreditation and Quality Assurance in Higher Education and Health Care date 08.04.2022

REPORT

OF THE EXTERNAL EXPERT COMMISSION ON THE RESULTS OF THE

EVALUATION OF THE EDUCATIONAL PROGRAMME 7

R01104 "GASTROENTEROLOGY, INCLUDING CHILDREN'S" LLP

"NATIONAL SCIENTIFIC ONCOLOGY CENTER"

FOR COMPLIANCE WITH THE STANDARDS OF ACCREDITATION OF

POSTGRADUATE EDUCATION PROGRAMMES (RESIDENCY

SPECIALTIES) MEDICAL EDUCATIONAL ORGANIZATIONS

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

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List of symbols and abbreviations

Abbreviation	Designation		
NSOC	"National Scientific Oncology Center" LLP		
EEC	External expert commission		
ECAQA	Eurasian Center for Accreditation and Quality Assurance in		
	Higher Education and Health Care		
EP	Educational programme		
EMC	educational and methodological council		
TEP	Typical Educational plan		
IEP	Individual Educational Plan		
CED	Catalog of elective disciplines		



1. Composition of the external expert commission

In accordance with ECAQA Order No. 09 dated March 11, 2022, an External Expert Commission (hereinafter referred to as EEC) was formed to conduct an external evaluation of the educational programme: 7R01104 "Gastroenterology, including children's" in the period of 29/03/2022 - 31/03/2022, consisting of:

order	Status as part	Full name	Regalia, position, place of work/place of		
№	of EEC		study, course, specialty		
1	chairperson	Madyarov Valentin Manarbekovich	doctor of Medical Sciences, Head of the Department of Surgery with a course of anesthesiology and resuscitation		
			NEI "Kazakhstan-Russian Medical University"		
2	Foreign Expert	SERGEY	Doctor of Medical Sciences, Head of the		
		ALEXANDROVICH	Department of Radiotherapy and Radiology		
		RYZHKIN	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	Kazakh	SLAVKO ELENA	Candidate of Medical Sciences, Associate		
	Academic	ALEKSEEVNA	Professor of the Department of Infectious		
	Expert		Diseases of the NEI "Kazakhstan-Russian		
			Medical University", Chairperson of the NEI		
			"Scientific and Practical Society of		
			Gastroenterologists of Almaty"		
4	Employers' representative	MADINA ERALYEVNA OSPANOVA	Head of the Department of Cryobiology of the RSE on REM "Scientific and Production		
	10prosontative		Center of Transfusiology" of the Ministry of		
			Health of the Republic of Kazakhstan		
5	Resident	BAIMUKHANOV	Resident of the 4th year of training in the		
	Representative	DAUREN	specialty "Neurosurgery, including children's"		
	-	SAMARKHANOVICH	of 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 of EEC (Order of the Director General of ECAQA No. 4 dated February 13, 2017).

The EEC report contains an assessment of 7R01104 "Gastroenterology, 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 7R01104 "Gastroenterology, including children's" LLP "National Scientific Oncology Center

	children's LLP National Scientific Officology Center
Organization name, legal form of	
ownership, BIN	180740003103
Management body	Management Board
Full name of the chief executive	Kulkaeva Gulnara Utepergenovna
officer	
Created in	By the Decree 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 in Astana on the basis of new centers", as well as by the Order of the Ministry of Health of the Republic of Kazakhstan dated July 31, 2008 No.433 "On the establishment of the joint-stock company" Republican Scientific Center of Emergency Medical Care" (hereinafter – RSCEMC) a new medical center was created. On July 4, 2014, the National Scientific Oncology and Transplantology Center (hereinafter referred to as the RSCEMC) was renamed 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 (hereinafter referred to as the NSOC) was established with 100% participation of the state, which is a subordinate organization of the Ministry of Health of the Republic of Kazakhstan (hereinafter referred to
	as the Ministry of Health of the Republic of Kazakhstan).
Location and contact details	Republic of Kazakhstan, 010000 "Esil district", Nur-Sultan str. Kerey, Zhanibek Khandar, 3 Tel.: +7 (7172) 70 29 59 E-mail: kense.777@mail.ru Official website: http://cancercenter.kz
State license for educational activities in the residency (date, number)	Appendix to the license for educational activities KZ81LAA00007958 dated December 13, 2016 on the basis of the order of the Acting Chairperson of the Committee for Control in the Sphere of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan dated July 5, 2019 No.537
Information on branches, subsidiaries (if any)	Not available
Year of implementation of the accredited educational programme (EP)	Training in the residency has been carried out since 2010. In 2010, the RSCEMC issued a license for postgraduate education No. 0137410 series AB dated 02.06.2010. The license for educational activities was re-issued from the RSCEMC to the NSOTC, No. KZ81LAA00007958 dated December 13, 2016.

	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.			
	Recruitment to the residency in the specialty			
	"Gastroenterology, including children's" was carried out in			
	2017 - 10 resident doctors, in 2018 – 1 resident doctor.			
Duration of training	2 years			
Total number of graduates since the	11			
beginning of EP implementation				
Number of residents on EP since the	In 2020/2021, 2021/2022, no resident gastroenterologists were			
beginning of the current year	recruited.			
Full-time trainers/	4 teaching staff were involved in working with residents: 1			
Combiners involved in the	MD, 2 PhD, 1 doctor of the highest category. Degree 75%.			
implementation of EP, incl. % of				
degree				

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.

Accreditation of this educational programme is carried out 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 7R01104 "Gastroenterology, including children's" for compliance with the accreditation standards (primary) ECAQA/ECAQA and conclusions

The report on the self-assessment of the educational programme in the specialty 7R01104 "Gastroenterology, including children's" of the NSOC is presented on 150 pages, there are no annexes to the relevant standards. The report on the institutional self-assessment is accompanied by a list of members of the working group on self-assessment and preparation for accreditation of the educational programme in the specialty 7R01104 "Gastroenterology, including children's" with an indication of the responsibility of each member of the internal commission; information on the person responsible for conducting the self-assessment for compliance with the Standards of accreditation of educational programmes of the Eurasian Center for Accreditation and Quality Assurance of Education and Health (ECAQA).

The report is characterized by the completeness of responses to all 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 content of the Self-Assessment Report is structured in accordance with the ECAQA Standards for Accreditation of Postgraduate Education Programmes (Residency) of Medical Education Organizations and includes a description of strengths and areas for improvement for each standard.

The self-assessment of the educational programme in the specialty 7R01104 "Gastroenterology, including children's" was carried out on the basis of the order dated 09.12.2021 No. 324-OD"On approval of the composition of the working group for training in specialized accreditation of NSOC.

The review of the Self-Assessment Report conducted by the Kazakh national expert E.A. Slavko noted the strengths and areas for improvement, as well as recommendations for additions and changes, including the following:

Standards	Reviewer (s) Recommendations				
1	1) Item 1.1.1. describes in detail the mission of the NSOC organization. It is				

	recommended to supplement the description of the mission of the educational programme in the specialty 7R01104 "Gastroenterology, including children's". 2) It is recommended to specify the final results of the educational programme in the specialty 7R01104 "Gastroenterology, including children's" (1.3.1.). (3) More specific description should be given of how stakeholders are involved in shaping the mission and defining the learning outcomes of the programme (1.4.1., 1.4.2.)
2	1) In paragraph 2.1.4, it is recommended to describe in detail how the personal participation of resident gastroenterologists in the provision of medical care and the formation of responsibility when working with patients is carried out. 2) In Table 2 (clause 2.1.8) should be supplemented with data on clinical mentors in the specialty "Gastroenterology, including pediatric" for 2020, 2021. 3) In paragraph 2.1.9, it is recommended to specifically describe how the NSOC provides resident gastroenterologists with both academic knowledge and the necessary skills that can affect their personal development and can be used in their future career. 4) Cl. 2.2.1 should be supplemented with a description of how the educational programme in the specialty 7R01104 "Gastroenterology, including children's" includes the scientific basis and methodology of medical research, including clinical studies and clinical epidemiology. 5) p. 2.5.1 it is recommended to supplement the data with a description of clinical bases for the development of practical skills by residents – gastroenterologists (the
3	area of study areas provided for residents by gastroenterologists, clinical units) 1) Clause 3.1.4 should describe the methods and tools of assessment used to determine the level of formation of competencies of residents studying under the educational programme in the specialty 7R01104 "Gastroenterology, including children's". 2) In paragraph 3.1.5, it is necessary to clarify the criteria for admission of a resident to the interim certification, by what method the assessment of practical skills is carried out during the final certification. 3) In paragraph 3.1.6, it is recommended to describe in more detail the mechanisms for studying and documenting the reliability, validity and fairness of evaluation methods. 4) When conducting the final certification, it is recommended to involve external examiners in the certification commission (3.1.8). 5) It should be clarified whether the new methods of competency assessment are
4	applied, if so, which ones (3.1.8). (1) In 4.1.3, it is recommended to specify the internal normative document of the NSOC, which defines the policy of admission to residency and transfer of residents from other national or international programmes. 2) Clause 4.1.4 should describe the method of conducting entrance examinations for the residency educational programme. 3) Provide for the inclusion of resident associations and organizations in the process of developing the admission and selection policy for residency educational programmes (4.1.8). 4)It is recommended to make additions to Table No.10 - The number of applicants accepted for training in the NSOC in 2017-2020 in the specialty "Gastroenterology, including children's" data for 2021, 2022. 5) Table No.11 - The number of students in the residency in the specialty "Gastroenterology, including children's" for 2017-2021 is recommended to be supplemented with data for 2020/21 and 2021/22 academic year. 6) In the specialty 7R01104 "Gastroenterology, including children's" the annual percentage of employment is the lowest in comparison with other specialties of the residence and makes on the average 72%. It is recommended to describe what work is

	carried out to improve the career guidance and employment of graduates (4.3.6).				
5	1) In paragraph 5.1.2, it is recommended to provide data on teachers involved in the				
	training of residents in the educational programme in the specialty 7R01104				
	"Gastroenterology, including children's".				
6	1) Further intensification of work with international organizations, attraction of grants				
	for scientific research.				
	2) Together with foreign mentors, participation in international clinical studies and				
	scientific programmes				
	3) In paragraph 6.1.1, it is recommended to indicate the classroom and library fund				
	used for training in the educational programme in the specialty 7R01104				
	"Gastroenterology, including children's".				
	4) In paragraph 6.2.1, it is recommended to supplement the data on the clinical bases				
	and the number of patients corresponding to the profile of the educational programme				
	in the specialty 7R01104 "Gastroenterology, including children's" to achieve the goals				
	of training, including the use of inpatient, outpatient care and on-call care. It should				
	also be indicated on which clinical bases residents master the skills of providing				
	medical care to patients of gastroenterological profiles at the level of PHC.				
7	1) Involvement of foreign experts and partners for the evaluation of educational				
	programmes.				
	2) It is recommended to provide in the section the results of feedback to employers on				
	the assessment of the training of graduates in the specialty "Gastroenterology,				
	including children's".				
	3) It is recommended to conduct a critical analysis of the low percentage of				
	employment of graduates of the educational programme and develop corrective measures.				
8					
0	1) More efficient use of information and communication technologies in the management system.				
	2)Improvement of mechanisms for financing academic mobility of residents,				
9	participation of residents in international events. Development and implementation of new methods and technologies for teaching				
9	residency programmes.				
	residency programmes.				

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.

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 Urology and adult andrology, 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 by the Director General of ECAQA Sarsenbayeva S.S. and agreed with the Chairperson of the Board of "NSOC" LLP Kulkaeva G.U. 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.

Kazakh academic expert Slavko E.A. took part in the events according to the programme of the visit of the WEC in the online format through the ZOOM-conference:

- Meeting of the Chairperson and members of the EEC with the leadership of the NSOC. The content of the meeting: introduction of the EEC members, familiarization with the objectives of the visit, interviews with the management on the strategy for the development of postgraduate education (residency).
- Scientific work of NSOC and integration of research in residency programmes. The content of the meeting: scientific directions, the system of motivation and participation of teachers in research, the effectiveness of research, ensuring the implementation of research by residents, the choice of research topics, the procedure for approving topics.
- Interviews with residency graduates.
- Interviews with employers of residency graduates.
- Familiarization with the training base of residents of the Gastroenterology programme.
- Questionnaires of residents and teachers (58 residents and 9 teachers).
- Study of documentation on the residency programme: EP, syllabuses, working curriculum

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.

Enrolment for the educational programme 7R01104 "Gastroenterology, including children's" has been carried out since 2017. For 5 years (2017-2021), 11 residents of the NSOC were graduated in the specialty "Gastroenterology, including children's". In 2020/2021, 2021/2022, no resident gastroenterologists were recruited.

The educational programme (EP) of the residence of the NSOC in the specialty "Gastroenterology, including children's" was developed on the basis of the Model Professional Curriculum of Postgraduate Education in Medical and Pharmaceutical Specialties, approved by the Order of the Minister of Health of the Republic of Kazakhstan dated February 21, 2020 No. KR DSM-12/2020 "On Amendments to the Order of the Acting Minister of Health and Social Development of the Republic of Kazakhstan dated July 31, 2015 No. 647 "On Approval of State Mandatory Standards and Model Professional Curricula in Medical and Pharmaceutical Specialties", as well as taking into account the principles and approaches of best international practice in the training of health professionals. The EP was approved at the meeting of the EMC NSOC dated August 19, 2022. Minutes No.3.

According to the EP, 90% of the time falls on the practical training of resident doctors. Theoretical knowledge is supplemented by such teaching methods as lectures, small group classes, problem-based learning, for which 10% of the study time is allocated.

The educational programme in residency is built taking into account the real needs of modern medicine, which is aimed at developing students' skills in the methodology of medical research with the use of scientific foundations. The above is determined by the quality of basic training, and will be mastered by residents during the course of disciplines: hepatology, gastroenterology (gastroenterological and hepatological diseases from the point of view of evidence-based medicine, statistical analysis in gastroenterology/hepatology, management of scientific research in gastroenterology/hepatology).

There is a sufficient material and technical base for the implementation of the educational programme. There are classrooms and lecture halls that meet sanitary standards. Since 2016, a simulation class with an area of 32.0 m2 has been functioning. The classroom is equipped with a simulator for puncture and anesthesia in intensive care, as well as resuscitation, neonatology and pediatric equipment. The main task of the simulation class is to provide an appropriate educational

environment for the acquisition of practical skills by students in compliance with the priority of patient safety.

There are 2 computer classes with an area of 60.0 m2 for 16 computers with Internet access and access to foreign databases of scientific and educational literature, such as full-text databases of international SCIENCE DIRECT and SCOPUS (Elsevier), Web of Knowledge (Clarivate Analytics), PUBMED, EBSCO (Medline Complete, DynaMed, eBook Collection), BMJ Updates, ClinicalKey (Elsevier), Cochrane Library (through personal registration), which provides resident doctors and students with the latest data on the achievements of medical science and practice. Clinical training is carried out on the basis of the NSOC, as well as on the basis of clinics in Nur-Sultan: CF "University Medical Center", NJSC "National Scientific Cardiac Surgery Center", "Multidisciplinary City Hospital" No.1, "Multidisciplinary Medical Center" of the Nur-Sultan akimat.

Residents of the NSOC, starting from the first days of training, are actively involved in the practical part of training, lead patients, are assigned to wards, work under the guidance of a mentor supervising doctors, are actively involved in the process both at the level of the reception room (admission of patients, hospitalization, prescription of laboratory and diagnostic manipulations) and the department (treatment plan and further management)

Training of resident gastroenterologists was carried out at the center of hepatobilar surgery, oncohepatology and organ transplantation. The daily working day began with a walkthrough of the department, acquaintance with the patients in the department. Resident gastroenterologists were entrusted with certain patients with whom they carried out certain work in the form of collecting complaints, anamnesis of the disease, life, studying the objective status, instrumental and laboratory methods of the study, after which the diagnosis, pathogenesis of this disease was studied with the supervisor and further tactics of patient management were determined; special attention was paid to the study and understanding of anatomy, pathophysiology of a particular disease, radiological picture; discussion meetings were held, modern types of treatment for patients with GI diseases were discussed; special attention was paid to the ability to maintain medical records, the ability to properly draw up diaries, consultations, clinical reviews; CT and MRI reviews were carried out together with the head of X-ray diagnostics departments; resident gastroenterologists were involved in endoscopic ligation of the MARPL, interventional interventions, liver biopsies, therapeutic and diagnostic laparocentesis, participated in the work of MDG on the selection of recipients for liver transplantation, in MDG on the selection of therapy for patients with oncological diseases of the gastrointestinal tract, in the biological therapy of patients with IBD (ulcerative colitis, Crohn's disease) in the form of explanations of indications/contraindications; the use of minimally invasive surgical interventions in the treatment of patients with diseases of the gastrointestinal tract was shown; English-language articles were analyzed for certain nosologies, new methods of treatment, meta-analyses, randomized studies were discussed; the ability of resident gastroenterologists to search for information was evaluated, in various sites, electronic journals, acquaintance with various gastroenterological, hepatological, oncological associations, prognostic models; also the assessment of communication skills, the ability to behave with patients, with relatives of patients, colleagues, nursing staff

When conducting classroom classes within the framework of the implementation of the academic programme of the residency in the specialty "Gastroenterology, including adult", innovative teaching methods are used, such as mini-lectures, clinical debriefings, consultations, active teaching methods: CBL, PBL, TBL, discussion of a clinical case (Case based Discussion - CbD), analysis of situations (CS – case-study), a magazine club (JC - Journal club), a thematic review of literature, a training conference, a research project (Project-based learning), learning through learning (LT – learning by teaching).

In the formation of the EP, the wishes of the administration of the NSOC for greater attention to the improvement of communication skills of residents, which was implemented through the introduction of active team training methods, were taken into account.

The introduction of assessment forms such as "assessment" and "list of privileges" to provide immediate constructive feedback and a "minimum list of practical skills" helps to improve the

practical training of resident doctors and their acquisition of specific skills. Students keep the necessary documentation, which reflects all the work done, for the entire period of study in their specialty. All the clinical work of the resident physician is reflected in the portfolio.

On clinical bases, in accordance with the discipline profile, students conduct an independent examination of patients, under the control of a clinical mentor/head of the department, independently or under the supervision of teachers perform medical manipulations, maintain medical documentation, draw up plans for examining and managing patients, control and signature is carried out by a clinical mentor/head of the department.

Resident doctors, according to the established schedule of duty, are part of the duty team, after which they report to the morning conferences on the work done.

According to the Rules for the organization of the educational process in the residency during work in the department, a resident doctor is provided with an appropriate number of patients to master their clinical skills, but not more than 4 patients per resident doctor at the same time. Resident doctors are assigned at least four shifts per month.

Shifts are established at night or during the day (on weekends/holidays), lasting from 8 to 14 hours, in accordance with the approved schedule of shifts.

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. Recommendations for improving the educational programme were discussed, and the chairperson of Turgunov E.M. held a final open vote on the recommendations for the ECAQA Accreditation Council on the accreditation period -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 the NSOC, 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, 58 residents responded (there were no residents studying under the educational programme in the specialty 7R01104 "Gastroenterology, including children's" in 2021/2022).

The survey of teachers included 23 questions of the questionnaire. In total 9 people answered, thus pedagogical experience till 5 years – at 22%, till 10-and years - 44%, more than 10 years - 33%.

One third of the teachers interviewed were core staff, one third were part-time staff and one third were mentors. The majority of respondents are satisfied with the organization of the educational process in the organization (77.8%). The majority (88.9%) agree that the organization of education observes ethics and subordination in relations between colleagues, teachers, management. 88.9% are satisfied with the organization of labor and workplace in this organization of education. 77,8% of respondents consider that in the organization there is an opportunity for career growth and development of competencies of the teacher and 88,9% - there is an opportunity to be engaged in scientific work and to publish results of research. Opinions were divided on satisfaction with wages. 66.7% participate in the development of methodological materials for the residency programme and 33.3% partially. 66,7% of respondents studied on courses (programmes) of professional development during this year and 33,3% - within 5 years. Half of the respondents conduct classes with residents once a week, 11.1% - daily, 11.1% - 2-3 times a week, 11.1% - 1-2 times a month. 88,9% consider

that have an opportunity to realize as the professional in specialty, 11,1% agree with this statement partially. 77,8% of respondents consider that in the organization there is enough equipment and resources for carrying out training of residents according to the accredited programmes. 88.9% of respondents were satisfied with the work of the department of postgraduate education.

The organization supports the participation in conferences (international, republican) of the majority of employees (77.8%). All respondents believe that students have free access to patients on clinical bases and all conditions for improving their practical skills. All interviewees must have educational and methodological materials during classes with residents. Only a third of the respondents satisfy the level of previous training of students (residents) when entering educational programmes in the organization of education.

Only a third of the respondents know about the implementation of the social support programme for teachers in the organization. The majority (88.9%) believe that the heads of the organization listen to the opinion of employees regarding the issues of the educational process, research, clinical work. Teachers use a variety of teaching methods in teaching residents. 77.8% believe that this questionnaire is useful for developing recommendations for improving the key activities of the organization and accreditation of educational programmes is an important and effective mechanism for ensuring the quality of postgraduate education.

The results of the survey in general demonstrate satisfaction with the educational process, the resources of the clinical base, the competencies of teachers, and also indicate the existence of centralized management of educational programmes. The organization has created conditions for improving the qualifications of teachers in the specialty, there is an opportunity for career growth and development of teacher's competencies, provides opportunities for scientific research, participation in scientific events

5. Analysis for compliance with the accreditation standards of the educational programme in the specialty 7R01104 "Gastroenterology, including children's" based on the results of an external assessment of the NSOC

Standard 1: MISSION AND END OUTCOMES

Evidence of compliance:

1.1 Mission statement and deliverables

The mission of the educational programme in the specialty 7R01104 "Gastroenterology, including children's" is the training of a qualified competitive specialist gastroenterologist, having a system of general cultural and professional competencies, capable and ready for independent professional activity in the conditions of outpatient polyclinic and inpatient specialized gastroenterological care, including high-tech assistance qualitatively performing its professional activities, using modern innovative technologies in order to solve socially important problems of practical health care, constantly improving its professional skills through lifelong learning in the conditions of dynamically developing modern medicine, as well as having an active civil position that meets the needs and expectations of society and the state.

The site https://www.cancercenter.kz/index.php/en/spetsialistam/obrazovatelnye-programmy/rezidentura/kompetentsii-vypusknikov-rezidentury presents the competencies of residency graduates formed in the process of training.

1.2 Professionalism and professional autonomy

The NSOC implements a competency-based model of medical education focused on the final learning outcome.

Clinical mentors of residents, demonstrating by their personal example, contribute to the formation of professionalism in residents. The formation of this competence takes place during the period of study through all disciplines of the educational programme. The assessment of this competence is carried out by the method of direct observation, a 360-degree tool, feedback from various sources.

Mandatory duty of residents according to the established schedule of duty at the clinical base allows to form professional skills and professional autonomy during independent clinical decisions.

Teaching the theoretical foundations of professionalism in the form of lectures, presentations, demonstrations of video recordings of interviews; conducting classes in a training form as one of the forms of problem-oriented learning; conducting psychological counseling as they deal with problematic issues contribute to the effectiveness of the implementation of business and professional communication.

Decisions on the development of educational programmes, assessment, selection and admission of resident doctors, the definition of teachers and scientific managers, employment of graduates, etc. are carried out in accordance with the current legislation of the Republic of Kazakhstan and the internal Rules for the organization of the educational process in the residency, approved by order No. 106-OD of July 5, 2019. The self-report fully reflects the autonomy of the medical organization in the formation of the educational programme, assessment and admission to the residency, selection of personnel for the educational process.

NSOC supports and develops the academic freedom of resident physicians by organizing meetings with the management of the education department, NSOC, where residents are encouraged to express opinions on the curriculum. Also, residents are motivated to publications, speeches at conferences, participation in various educational events in the NSOC and beyond.

Resident doctors directly participate in the formation of the IEPL for each academic year together with the clinical mentor by freely selecting disciplines from the CED.

1.3 Learning outcomes

The self-assessment report reflects in detail the final results of training in the residency, describes in detail all the skills, abilities and competencies that a graduate of the residency should have under the Educational programme 7R01104 "Gastroenterology, including children's". In the

EP is payed a great attention to the formation of practical skills, the solution of diagnostic and clinical situations in patients with concomitant pathology. The main result of the training is the formation of an independent highly qualified doctor, with the need for continuous improvement of his qualifications and professional skills.

In the specialty 7R01104 "Gastroenterology, including children's" the final results of training are:

1 General and special skills (the graduate is able to establish a diagnosis and carry out treatment, prevention, medical rehabilitation, dynamic observation of adult and pediatric patients with digestive tract pathology at all levels of medical care; diagnose oncological diseases and manage patients of pretumour pathology of the gastrointestinal tract and liver; determine the nutritional status of the patient and carry out its correction in diseases of the digestive tract; provide qualified medical care in urgent and life-threatening conditions; provide effective patient-centered care from the standpoint of evidence-based medicine, including appropriate and effective measures aimed at the treatment and prevention of gastrointestinal diseases).

- 2. Medical knowledge (the graduate is able to formulate a clinical diagnosis, prescribe a treatment plan and assess its effectiveness on the basis of evidence-based practice at all levels of medical care).
- 3. Ability to learn and develop (a graduate is able to learn independently and train other members of the professional team, actively participate in discussions, conferences and other forms of continuous professional development).
- 4. Communication skills (the graduate is able to effectively interact with the patient, his environment, health care professionals in order to achieve the best results for the patient).
- 5. Professionalism (a graduate is able to act within the legal and organizational framework of the health care system of the Republic of Kazakhstan in his/her specialty, provide basic assistance in emergency situations, work as part of interprofessional teams to implement the policy of strengthening the health of the nation).

6. Research (the graduate is able to formulate adequate research questions, critically assess professional literature, effectively use international databases in their daily activities, participate in the work of the research team).

7. System-substantiated practice

The NSOC informs the public about the established final results of the training of residency programmes by posting on the official website of the NSOC the final competencies of the graduate of the residency. The criteria for assessing the level of competency formation are also reflected in the syllabuses, which are freely available on the organization's website.

1.4 Participation in the formulation of the mission and final results

The draft mission of NSOC was discussed and approved by the Charter of NSOC with the involvement of all interested parties (graduate of residency in 2016, deputy chairperson of the board of NSOC and heads of clinical departments of NSOC, employees of the education department of NSOC) (Protocol of the NSOC). Through a round-table discussion of the new vision and perspectives, stakeholders expressed their views in shaping the mission and determining the learning outcomes of the programme.

Conclusions of the EEC on the criteria. Compliant with 17 standards: fully -15, partially -2, non-compliant -0

Standard 1: Implemented

Recommendations for improvement identified during the external visit:

1) It is recommended to involve stakeholders in the formation of the mission and determination of the final results of the residency programme (1.4.1., 1.4.2.)

Standard 2: EDUCATIONAL PROGRAMME

Evidence of compliance:

2.1 Postgraduate programme framework

The educational programme of the residency in the specialty 7R01104 "Gastroenterology, including children's" is aimed at mastering theoretical and practical skills in accordance with the established final results of training in the context of qualifications of graduates of residency programmes. The final results are based on the requirements of the state mandatory standard of residency for medical specialties and the standard professional training programme for medical specialties of the residency, approved by the order of the Acting Minister of Health and Social Development of the Republic of Kazakhstan dated July 31, 2015 No. 647 "On approval of state mandatory standards and standard professional training programmes for medical and pharmaceutical specialties" https://adilet.zan.kz/rus/docs/V1500012007.

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.

In the report on the self-assessment of the educational programme 7R01104 "Gastroenterology, including pediatric", the NSOC defined a model of the educational programme based on the established final learning outcomes of residents and their qualifications, which ensures systematic and transparent learning. The report provides convincing evidence with references to regulatory documents.

2.2 Scientific method

NSOC created the necessary conditions for the use of the achievements of medical science in the training of resident doctors, the development of scientific and clinical potential, the development of international scientific and educational cooperation with scientific centers and the best clinics of Kazakhstan and countries near and far abroad, the introduction of innovative technologies in education, health care and research activities.

The programme of training of residents has an important role in the acquisition of skills for rapid search and processing of specialized information: the ability to find a reliable scientific source, reliable

facts to distinguish from unreliable, facts – from opinions, expert assessments, etc. Resident doctors learn to work with information by performing research and clinical work.

All educational programmes and their content are formed on the basis of the latest scientific achievements in modern gastroenterology and hepatology and are based on the principles of evidence-based medicine. The faculty constantly attends international congresses, conferences and uses the knowledge gained in conducting classes. Thus, during classes, residents study and analyze protocols for the treatment and diagnosis of liver and gastrointestinal diseases, developed on the basis of evidence-based medicine by leading professional associations (EASL, APASL, AASLD, WGO, etc.), as well as the Republic of Kazakhstan.

The educational programme of the residency includes compulsory disciplines in evidence-based medicine, management of scientific research, public health and health care, teaching the search for reliable and high-quality information, the ability to differentiate it in terms of value and effectively use it in further clinical practice. Practical teaching of the basics of evidence-based medicine includes self-assessment of publications in various fields of medicine from the standpoint of analyzing the construction of the study, clinical cases of patients based on the principles of evidence-based medicine, various analytical and research works aimed at teaching methods of searching and evaluating the results of clinical studies. Resident physicians are familiar with the levels of evidence in medicine, monitoring issues, and aspects of clinical research. Approaches to assessing the value of scientific publications from the point of view of evidence, requirements for them, the rules for compiling systematic reviews, meta-analyses, clinical recommendations are studied.

In the process of training, residents master the basics of evidence-based medicine and use scientific data in their practice. The skills of the methodology of medical research with the use of scientific bases are mastered by residents during the course of disciplines: hepatology, gastroenterology (gastroenterological and hepatological diseases from the point of view of evidence-based medicine, statistical analysis in gastroenterology/hepatology, management of scientific research in gastroenterology/hepatology).

2.3 Content of the residency programme

TEP for EP in the specialty7R01104 "Gastroenterology, including children's" was drawn up in accordance with the requirements of the SSCES (Order of the Acting Minister of Health and Social Development of the Republic of Kazakhstan dated July 31, 2015 No.647 https://adilet.zan.kz/rus/docs/V1500012007), includes the profile disciplines of the mandatory component and the component of choice.

The specialty "Gastroenterology, including children's", combined into modules, contains 6 disciplines (mandatory component) from 12 to 45 credits, and also includes a component of choice.

Mandatory component contains 6 disciplines (3960 hours) and optional component (120 hours), 120 hours for interim and final certification.

The optional component allows residents to draw an individual learning path.

Training in the educational programmes of the residency is carried out with a clear orientation to the goals of the studied disciplines, taking into account the competence approach. The purpose of training in the profiling disciplines of gastroenterologists is to form the competitiveness of residency graduates in the labor market, which provides the possibility of prompt employment in specialties. CED is systematically reviewed and adjusted. The catalogue of elective disciplines is expanded in the range of disciplines according to the professional orientation of the resident and according to their wishes and employment issues.

2.4 Programme structure, content and duration

All academic disciplines and disciplines of the specialty are closely interconnected. The formation of the content of disciplines is structured into logically completed methodological blocks. 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 gastroenterologists is carried out on the basis of an analysis of the needs of the regional health system.

The programme takes into account the final learning outcomes. When planning the educational programme, equal representation is ensured and the needs of all stakeholders are taken into account.

In accordance with the SCES, the EP consists of a mandatory component (132 credits) and an optional component (4 credits). Also, 2 loans for interim certification and 2 loans for final certification are allocated. Thus, the workload for the training of a gastroenterologist is 140 credits.

EP "Gastroenterology, including pediatric" includes the following disciplines: "Gastroenterology", "Hepatology", "Fundamentals of Oncology", "Nutrition", "Endoscopy", "Ultrasonic Diagnostics".

The full academic load of one academic year corresponds to at least 70 academic credits (2,100 academic hours) in one academic year.

2.5 Organization of training

The main training base for resident gastroenterologists is the Center for Hepatopancreatobiliary Surgery, Oncohepatology and Organ Transplantation with 26 beds and is represented by the following units: organ transplantation, oncohepatology, gastroenterology. Every year, more than 300 patients are treated in the center of oncohepatology and gastroenterology. Consultative and diagnostic center with day hospital bed capacity 31. Gastroenterologists and hepatologists are scheduled to visit the CDC 5 times a week, in the morning and in the afternoon, and it is also planned to open a specialized outpatient care room for patients with gastroenterological/hepatological problems.

2.6 Relationship between postgraduate medical education and health care

According to the Rules for the organization of the educational process, in the residence of the NSOC, the Rules for the organization of the educational process in the residence, approved by order No. 106-OD of July 5, 2019, a clinical mentor is assigned to the resident doctor.

Doctors with a high level of professional training act as mentors. The main task of the mentor is to instill interest in the professional activities of resident doctors. Thus, a clinical mentor is a person assigned to a resident doctor to master the necessary practical skills.

Residents of the NSOC, starting from the first days of training, are actively involved in the practical part of training, lead patients, are assigned to wards, work under the guidance of a mentor supervising doctors, are actively involved in the process both at the level of the reception room (admission of patients, hospitalization, prescription of laboratory and diagnostic manipulations) and the department (treatment plan and further management)

Training of resident gastroenterologists was carried out at the center of hepatobilar surgery, oncohepatology and organ transplantation. The daily working day began with a walkthrough of the department, acquaintance with the patients in the department. Resident gastroenterologists were entrusted with certain patients with whom they carried out certain work in the form of collecting complaints, anamnesis of the disease, life, studying the objective status, instrumental and laboratory methods of the study, after which the diagnosis, pathogenesis of this disease was studied with the supervisor and further tactics of patient management were determined; special attention was paid to the study and understanding of anatomy, pathophysiology of a particular disease, radiological picture; discussion meetings were held, modern types of treatment for patients with GI diseases were discussed; special attention was paid to the ability to maintain medical records, the ability to properly draw up diaries, consultations, clinical reviews; CT and MRI reviews were carried out together with the head of X-ray diagnostics departments; resident gastroenterologists were involved in endoscopic ligation of the MARPL, interventional interventions, liver biopsies, therapeutic and diagnostic laparocentesis, participated in the work of MDG on the selection of recipients for liver transplantation, in MDG on the selection of therapy for patients with oncological diseases of the gastrointestinal tract, in the biological therapy of patients with IBD (ulcerative colitis, Crohn's disease) in the form of explanations of indications/contraindications; the use of minimally invasive surgical interventions in the treatment of patients with diseases of the gastrointestinal tract was shown; English-language articles were analyzed for certain nosologies, new methods of treatment, meta-analyses, randomized studies were discussed; the ability of resident gastroenterologists to search for information was evaluated, in various sites, electronic journals, acquaintance with various gastroenterological,

hepatological, oncological associations, prognostic models; also the assessment of communication skills, the ability to behave with patients, with relatives of patients, colleagues, nursing staff

Conclusions of the EEC on the criteria. Compliant with 31 standards: fully -28, partially -3, non-compliant - 0.

Standard 2: Implemented

Recommendations for improvement identified during the external visit:

- 1) The educational programme should include a description of teaching methods that allow to form the residents' academic knowledge, as well as the necessary skills and abilities that can affect their personal development and can be used in their future career (clause 2.1.9).
- 2) It is recommended to include in the educational programme in the specialty 7R01104 "Gastroenterology, including children's" topics on the scientific foundations and methodology of medical research, including clinical studies and clinical epidemiology (clause 2.2.1).
- 3) The educational programme should indicate the list of clinical bases where residents of gastroenterologists are trained, including where competencies are formed to provide medical care to patients at the PHC level (the area provided for educational areas, clinical units) (clause 2.5.1).

Standard 3: ASSESSMENT OF STUDENTS

Evidence of compliance:

3.1 Methods of evaluation

Assessment of knowledge of residents is carried out through current, milestone and final control.

Assessment of academic achievements of residents is carried out on a 100-point scale:

Knowledge (30 points): security questions, tickets, test tasks, situational tasks, etc.

Practical skills (20 points): examination of a standardized and real patient, clinical analysis of the patient, supervision and examination of patients (palpation, percussion and auscultation), invasive and non-invasive procedures, according to the List of Privileges, presentation of the patient's medical history, filling in medical records, performing manipulations in accordance with qualification requirements, etc.

Communication skills (20 points): communication with the patient and their relatives, employees of NSOC LLP, conversation, discussion, questionnaires, self-esteem, teamwork, etc.

Work with medical documentation (10 points): medical records, reporting forms, journals, etc. medical documentation.

Self-development (20 points): the use of modern sources of information (Medline Complete, Dynamed, WoS, Elsevier (Scopus), Ebsco) in medical practice, working with paper and electronic media, algorithms, SOPs of our country and other countries.

The results of students' academic achievements are recorded in the electronic and paper educational journal and form examination sheets. 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.

The final certification of resident doctors is carried out within the terms provided for by the academic calendar and the WEPl in the form of a comprehensive examination, which is admitted to resident doctors who have completed a full course of study in the residence of the NSOC in accordance with the WEPl and IEPl, portfolio. When conducting the final state certification to assess the educational achievements of residents, the commission includes practitioners of health care, external examiners are involved.

3.2 Relationship between evaluation and training

Evaluation methods are aimed at assessing the achievements of residents, as well as at the formation of students' competencies. The final control allows you to assess the achievement of the final learning outcomes. The principles, methods and practices of evaluation in NSOCs are clearly compatible with educational goals and contribute to improving the quality of learning.

The conclusions of the EEC meet the criteria of 11 standards: fully - 8, partially -3, does not comply -0.

Recommendations for improvement identified during the external visit:

- 1) The educational programme in the specialty 7R01104 "Gastroenterology, including children's" should include a description of the methods and assessment tools used to determine the level of formation of competencies of residents studying under the educational programme (clause 3.1.4)
- 2) In the educational programme in the specialty 7R01104 "Gastroenterology" it is recommended to specify the criteria for admission of a resident to the intermediate and final certification. Describe the method used to assess practical skills in the final certification of residents (cl. 3.1.4., 3.1.5)
- 3) It is recommended to develop and implement mechanisms for studying and documenting the reliability, validity and fairness of evaluation methods. (clause 3.1.6)
- 4) 4) When conducting the final certification, it is recommended to involve external examiners in the certification commission (3.1.8).

Standard 4: STUDENTS Evidence of compliance:

4.1 Admission and Selection Policy

Entrance examinations to the residency are held from 08 to 16 August, admission - until 28 August. For the period of the entrance examinations, examination commissions for specialties are created in the residence of the NSOC. Each examination commission in the specialty consists of a chairperson and at least 2 members of the commission from among the staff of the NSOC who have a doctorate or candidate of science degree, or a doctor of philosophy (PhD) degree, or the highest/first qualification category in the relevant specialty. The composition of the examination commissions for specialties is approved by the order of the head of the NSOC or a person authorized by him.

The results of the entrance examination in the specialty are calculated on the basis of a point-rating letter system for assessing academic achievements and are entered in the examination sheet.

The persons who scored the highest points on the sum of the entrance exams on a 100-point scale are accepted into the residence of the NSOC. In the case of the same scores of competitive points, the preferential right for enrollment is given to persons who have the highest grade in the specialty, in the case of the same scores in the specialty, the preferential right is given to persons who have scientific publications, including in rating scientific publications; certificates of scientific development; certificates of award of scientific scholarships; grants; certificates/diplomas for participation in scientific conferences and competitions, etc.

4.2 Number of residents

Admission of students to the NSOC is carried out annually according to the study of the need for practical health care and from the capabilities of the clinical base.

The balance between the existing capacity and capabilities of the NSOC for training and the recruitment of students is determined on the basis of the following indicators:

- The number of teachers holding an academic degree or qualification category;
- the need for practical health care in highly qualified specialists;
- the number of patients of the corresponding profile;
- innovative technologies and modern new methods of diagnosis and treatment of the Center;
- scientific and technical programmes of NSOC;
- number of operating theatres;
- information resources (library, computer classes, archive);
- availability of simulation equipment;
- number of classrooms, etc.

The number of residents admitted within the framework of the state order is regulated by the DPHR of the Ministry of Health and Social Development of the Republic of Kazakhstan and depends on the demand for specialists in the country as a whole. Residents are also trained within the order from local

executive bodies, on the basis of the emerging need of specialists. Residents are also recruited for paid training at the centre.

4.3 Resident support and advice

In the context of the implementation of a competence-oriented model of medical education, the NSOC operates a system of counseling. To this end, the order of the head of the NSOC for the entire period of study in the residency assigns each student a clinical mentor who provides the functions of an academic mentor, participates in the formation and implementation of an individual curriculum, in the selection of disciplines and teachers on the basis of work with the catalog of disciplines and the work curriculum, manages the clinical, educational activities of the student and mastering practical skills. Also, a clinical mentor can provide advisory assistance in resolving future career issues, determining the basis of production practice. Clinical mentors carry out educational work with the resident doctors assigned to them on the issues of improving their academic performance, discipline and attendance at classes, attracting them to participate in the public life of the NSOC.

4.4 Representation of residents

The quality of the implementation of the educational programme is ensured by the participation of resident doctors in the discussion of the mission of the NSOC and the educational programme, access to which is available through the posting on the website of the NSOC.

The planning of the educational environment, assessment methods, improvement of the educational process are based not only on regulatory and legal documentation, management decisions and teachers' proposals, but also take into account the opinion of resident doctors. To this end, sociological surveys have been introduced in the NSOC, the questionnaires of which consist of questions about the schedule, methods of training and evaluation, conditions of training in clinics, the availability of methodological and information and communication materials, relations with teachers. The Education Department conducts surveys of resident doctors, teachers of residency programmes.

4.5 Working conditions

According to the Order of the Ministry of Health of the Republic of Kazakhstan No. KR DSM-270/2020 of December 15, 2020 "On approval of the rules for placing a state order, admission to study and training of medical personnel in the residency", resident doctors studying on a state educational order are provided with a state scholarship in accordance with the established procedure.

Resident doctors participate in all the medical activities of the NRC center related to the training programme: rounds in the department; morning medical conference; assistance in the departments according to the specialty being trained; night/day duty as part of the duty team; consultations and conversations with patients and/or their relatives; doctors' meeting on the review of clinical cases; consiliums; reviews of incidents according to national accreditation standards;

In addition, resident physicians participate in the organization and conduct of scientific and information exchange activities in the form of conferences, seminars, symposia, forums and other forms aimed at the exchange of experience, scientific and practical information, and the strengthening of mutually beneficial relations.

Training time for residents is from 8.00 am to 3.00 pm. Allocated time for work in the library, participation in lectures, seminars and conferences, for independent work. Thus, the training of residents is not limited to the provision of medical care in the process of training, but also through additional measures provides an opportunity to improve theoretical knowledge and their personal development.

Resident duty planning is carried out on the basis of the duty schedule, which is approved for 1 month with an indication of the department in which the duty should be carried out. Resident doctors are assigned at least four shifts per month. Shifts are established at night or during the day (on weekends/holidays), lasting from 8 to 14 hours, in accordance with the approved schedule of shifts.

Conclusions of the EEC on the criteria. Compliant with 30 standards: fully -30, partially -4, do not match -0

Standard 4: Implemented

Recommendations for improvement identified during the external visit:

- 1) It is recommended to develop an internal regulatory document of the NSOC, which defines the policy of admission to the residency with a description of the procedure for conducting entrance examinations for the educational programme of the residency, as well as the transfer of residents from other national or international programmes (cl. 4.1.3., 4.1.4)
- 2) Provide for the inclusion of resident associations and organizations in the process of developing the admission and selection policy for residency educational programmes (4.1.8).
- 3) In the specialty 7R01104 "Gastroenterology, including children's" the annual percentage of employment is the lowest in comparison with other specialties of the residence and makes on the average 72%. It is recommended to describe what work is carried out to improve the career guidance and employment of graduates (4.3.6).

Standard 5: FACULTY Evidence of compliance:

5.1 Recruitment and Selection Policy

In accordance with Art.51 Chapter 7 of the Law of the Republic of Kazakhstan "On Education" https://adilet.zan.kz/rus/docs/Z070000319_ persons with a special pedagogical or professional education in the relevant field are admitted to pedagogical activity.

According to the RoK SCES-2020, persons assigned to resident doctors to master the necessary theoretical and practical skills are appointed from among the teaching staff and /or practical health care workers with a degree, first or higher qualification category, having the appropriate training in the field of medical

The composition of teachers and clinical mentors is approved by the Chairperson of the Management Board of the Company or a person authorized by him annually, taking into account a new admission for the relevant academic year.

Teachers involved in the training of residents in the educational programme in the specialty 7R01104 "Gastroenterology, including children's": Gastroenterological direction in the NSC is supervised by two honorary professors of the NSC: Doctor of Medical Sciences, Chief Gastroenterologist/Hepatologist of the Republic of Kazakhstan, President of the International Gastroenterologists, Professional Association of Hepatologists **Transplantologists** "GastroHepatoTransplantGroup Astana", recognized by the European Association for the Study of the Liver (EASL), as a national association of Kazakhstan, Doctor of Medical Sciences, doctor of the highest qualification category Kaliaskarova Kulpash Sagyndykovna and Ph.D., Vice-President of the International Professional Association of Gastroenterologists, Hepatologists and Transplantologists "GastroHepatoTransplantGroup Astana" Yessembetov Kakharman Izbasarovich. Physicians of gastroenterology and hepatology of the center of hepatopancreatobiliary surgery, oncohepatology and organ transplantation: Zhanasbayeva M.S., the first qualification category, Agynbay A.E., Baromyko n.a., the second qualification category. Transplantologists: doctor transplantologist, hepatobiliary surgeon, candidate of medical sciences Asan Aitmukashevich Zheksembayev, transplantologist, hepatobilary surgeon, PhD (graduated in Japan doctoral studies), member of the Association of transplantologists of the World, member of the Association of women in transplantation Saparbay Jamila Zhumabekovna;

One of the important directions in gastroenterology is the course of endoscopy, which is supervised by the Head of the Center for Expert Endoscopy of the National Scientific Oncology Center, President of the NEI "Kazakh Endoscopic Society", Candidate of Medical Sciences K.U. Batyrbekov.

Curator for the discipline "Fundamentals of Oncology" Deputy Chairperson of the Board for Medical Activities, Candidate of Medical Sciences, Associate Professor, surgeon of the highest qualification category Mukazhanov Adilbek Kairbekovich; Head of the Center for Hepatopancreatobiliary Surgery, Oncohepatology and Organ Transplantation, Transplantologist, Hepatopancreatobiliary Surgeon, Oncologist, General Surgeon, Spataev Zhanat Seitbattalovich of the highest qualification category.

The curator of the discipline "Ultrasound Diagnostics" Orazbayeva Damesh Rafagatovna, Master of Medical Sciences, doctor of the highest qualification category, "Excellent Health Care" of the Ministry of Health of the Republic of Kazakhstan, the author of about 45 printed scientific works on ultrasound diagnostics, owns all methods of ultrasound and Doppler imaging carried out in the center.

5.2 Teachers' obligations and development

The teaching staff of the NSOC consists mainly of qualified medical personnel who conduct clinical activities. Therefore, the professional development programme is aimed at improving clinical skills, in accordance with advanced medical technologies. In the training of resident doctors, special emphasis is placed on the development of their practical skills, taking into account the modern requirements of the development of medical science and medicine in accordance with international standards, which is a feature of the programmes of the residence of the NSOC.

The NSOC policy in the field of professional development of personnel is designed to provide favorable conditions for the growth of competencies and improving the skills of employees necessary for the implementation of the strategic goals and objectives of the NSOC.

Training and advanced training of employees is carried out on the basis of the annual Plan for the Development of Qualifications and Competencies of Personnel (hereinafter referred to as the Development Plan), which is developed by the Department of Human Resources Management.

Leading specialists - gastroenterologists, teachers and resident doctors are members of the international professional association of gastroenterologists, hepatologists and transplantologists "GastroHepatoTransplantGroup Astana", which carries out test interaction with the European Association for the Study of the Liver (EASL), actively participate and work in congresses, conferences, cycles organized by the association, as well as being teachers at the advanced training cycles of doctors of regional services.

Gastroenterologists/hepatologists of the center hold telemedicine consultations with regional services, where the tactics of management and treatment of complex categories of patients are discussed, together with foreign specialists, cooperation with the Faculty of Medicine of the Heidelberg University (Germany) Professor Teufel; as well as with the RWTH Aachen University Clinic, Aachen, collaborators with the Associate Professor of the Department of Gastroenterology and Nutrition of the North-Western State Medical University named after I.I. Mechnikov (formerly SpMAPE), a leading specialist-consultant of the "City Center for Diagnostics and Treatment of Inflammatory Bowel Diseases" in the City Clinical Hospital No.31 of St. Petersburg Shchukina O.B.

During the period 2017-2021, gastroenterologists participated in the work of the Joint Colloquium of the LDLT Study Group and the IV Congress of Hepatologists, Gastroenterologists of Kazakhstan, with international participation in Nur-Sultan; there were refresher courses for gastroenterologists on the topic: Topical issues of diagnosis and treatment of inflammatory bowel diseases in the amount of 120 hours; Refresher training cycle on the topic: "Liver cirrhosis. Preparation for liver transplantation. Immunosuppression after liver transplantation. Early and late complications after liver transplantation "; Advanced training cycle: "Pancreatology in the practice of gastroenterologist: the most important aspects in 2021"; participated in the International Congress UEGW VIRTUAL 2021"; also underwent an advanced training cycle on the topic: "Current issues of practical gastroenterology.

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

Standard 5: Implemented

Recommendations for improvement identified during the external visit:

Standard 6: EDUCATIONAL RESOURCES

Evidence of compliance:

6.1 Logistics and equipment

The NSOC has a modern material and technical base for the training of students, which includes: study rooms, lecture halls, conference rooms, libraries, computer classes, a video system for broadcasting from operating rooms to the hall, information technology tools, a simulation classroom,

and its own clinical base. Agreements on the provision of a clinical base have been concluded with 3 medical organizations in Nur-Sultan, 3 republican research institutes and national scientific centers. All clinical bases are equipped with modern educational and therapeutic and diagnostic equipment, ensuring the educational process at a high professional level and the provision of highly qualified and highly specialized medical care to the population of the Republic of Kazakhstan.

6.2 Clinical Bases

In the NSOC, the training of resident doctors is carried out on its own clinical base, the NSOC is accredited by the commission of the Public Association "Experts and consultants on external comprehensive assessment in the field of health care". The National Scientific Cancer Center is a multidisciplinary hospital with 242 beds. (http://cancercenter.kz – Homepage – About us).

6.3 Information technology

Information on the implementation of postgraduate and additional education programmes is available on the official website: (http://cancercenter.kz - Home page - About us in the Education section in full accessibility for all interested parties. Information and educational content is constantly updated.

In order to implement programmes using remote educational technologies (DLT), since 2019, an elearning management system based on the Moodle platform has been introduced: http://nscot.com.kz/moodle/, since 2020, a professional platform ZOOM has been purchased.

6.4 Clinical Teams

The programme of training students to work in a team and effective interaction with other health care specialists includes direct work with clinical workers in all spheres of their activity, discussion of management tactics, treatment of patients in the conditions of the department and participation in pathomorphological, clinical conferences, in various educational events (educational and clinical commission), scientific and practical conferences.

6.5 Medical Research and Advances

The Department of Education systematically informs employees, teachers, resident doctors and trainees of the NSOC cycles about the news of scientific and practical medicine in the world space (international and domestic competitions of scientific projects, grants for training, internships, conferences, symposia, congresses, etc.), designated by the Ministry of Health of the Republic of Kazakhstan as priority areas in medicine.

To date, 10 resident doctors of 2-4 years of study are involved in research projects within the framework of the residency programme.

6.6 Education expertise

In order to ensure the quality of educational programmes in the NSOC, an educational and methodological council was created, which includes teachers, from among the leading clinical workers of the NSOC centers, administrative and management personnel, the management of the NSOC.

In addition, according to the requirements of national accreditation, the center has a quality management system service to monitor clinical performance and minimize medical errors, including students, which in turn improves the quality of training of resident doctors.

Also, in order to control and improve the educational process of resident doctors, clinical mentors, employees of the Structural Unit and other interested persons hold joint meetings with resident doctors of all years of study in the relevant specialty on educational, disciplinary and other working issues.

6.7 Training in other institutions

In order to provide educational services in the profiling disciplines according to the SCES, which are not available on the basis of the NSOC, contracts have been concluded with third-party organizations to provide a clinical base for the training of doctors resident in the NSOC, as well as with individuals to provide educational services on a reimbursable basis.

Contracts have been concluded with the following organizations for the training of resident doctors:

- National Scientific Cardiac Surgery Center;
- "Medical University of Astana";

- State Enterprise on the Right of Economic Management "Multidisciplinary Medical Center" of the Akimat of Nur-Sultan
- Municipal Children's Hospital No.1;
- Municipal Enterprise on the Right of Economic Management "Multidisciplinary Regional Hospital No.2";
- University Medical Center;
- RSE "Hospital of the Medical Center of the RoK POM" on REM;
- Aesthetic Life LLP.

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) It is recommended to continue to form a library fund used for training in the educational programme in the specialty 7R01104 Gastroenterology, including children's" (clause 6.1.1)

Standard 7: PROGRAMME EVALUATION

Evidence of compliance:

7.1 Monitoring and evaluation mechanisms

To monitor the implementation of the educational programme and as emerging problems are identified in the NSOC, the following documents are approved and updated: Rules for the organization of the educational process in the residency, approved by order No. 106-OD of July 5, 2019; Regulations on the educational and methodological council, approved by order of the Chairperson of the Board No. 124-OD of July 18, 2019.

An education department has been established in the NSOC, the functions of which include organizing, monitoring educational events, monitoring the introduction of innovative educational technologies and promising forms of organization of the educational process, as well as developing recommendations for improving the educational process, taking into account the identified achievements and comments.

In addition, NSOC monitors the processes and results of training using control and measuring tools. These include test tasks, situational tasks, tickets, questions, tests and other materials for the final control of students' knowledge, necessary to control the theoretical and clinical achievements of the specialist and aimed at determining the correspondence of the knowledge, skills, abilities and competencies acquired by him.

7.2 Feedback from teachers and residents

The NSOC conducts feedback on the quality of programmes from teachers and students through anonymous questionnaires on paper. This survey makes it easy to survey and analyze data using the default statistical analysis methods. The obtained data are used to analyze the quality of the programmes of the NSOC residency for subsequent improvement and adaptation of new educational activities.

In order to monitor the graduates of the residency programme when graduating from the residency, a questionnaire is carried out on the questionnaires "Evaluation 360", then after their employment in medical organizations, it is proposed to pass the questionnaire of graduates on the assessment of satisfaction with the level of professional training on the basis of the NSOC.

7.3 Results of Residents and Graduates

Employers of residency graduates highly appreciate the quality of residents' training. An assessment of the clinical training of residents is carried out, which will provide an opportunity to identify the parties for further development and improvement.

7.4 Stakeholder Engagement

During the evaluation of the implementation of the EP in the NSOC, the education department demonstrated evidence of the involvement of all stakeholders in improving the educational programme.

7.5 Procedure for Approval of Educational Programmes

The NSOC has developed mechanisms for the approval of educational programmes, which provide for the evaluation of programmes at the stages of planning, implementation, analysis of results and implementation of changes, which allows monitoring the implementation of the educational programme.

Conclusions of the EEC on the criteria. Compliant from 15 standards: fully -14, partially -1, non-compliant - 0

Standard 7: Implemented

Recommendations for improvement identified during the external visit:

1) Involve foreign experts and partners for the evaluation of the educational programme

Standard 8: GOVERNANCE AND ADMINISTRATION Evidence of compliance:

8.1 Management

In accordance with the Law of the Republic of Kazakhstan "On Education" and other normative legal acts regulating the activities of medical higher educational institutions, the NSOC has developed and approved documents defining the scope of duties and powers in relation to the educational programme of the residency, including the obligations to ensure the educational process in full with all necessary information sources: textbooks, textbooks, teaching aids and developments in educational disciplines, active handouts and instructions for independent work, electronic textbooks, access to network educational resources

8.2 Academic Leadership

The activities of the management regarding the fulfillment of the mission and the solution of tasks assigned to the NSOC are studied and evaluated on the basis of the analysis and formation of reports and plans, the Concept of Development of the National Scientific Oncology Center (approved by Order 420 of the Minister of Health of the Republic of Kazakhstan dated 01.04.2019) analysis of the fulfillment of the goals and objectives of the strategic plan, internal audit reports (according to the plan), the results of the work of internal and external commissions.

Current and prospective issues of educational, scientific and clinical areas are the subject of weekly meetings of the heads of the NSOC.

The EMC is a tool for ensuring the transparency of the management system and decisions made on the educational programme.

The results of students' achievements are also an indicator of the effective activities of management: final control, interim certification, final certification.

8.3 Training budget and resource allocation

From the analysis of financial indicators, it follows that the amount of financial resources allocated for the implementation of educational programmes is sufficient, the appropriate material and technical equipment, scientific and educational laboratory base, the development of information networks, the payroll fund with mandatory contributions are provided.

8.4 Administration and Management

NSOC LLP has an appropriate administrative and academic staff according to the staff schedule, the functional responsibilities of which include support and implementation of the educational programme. Also, the PGE department of LLP NSOC demonstrated the developed quality management programme, including regular internal and external reviews and audits.

In order to ensure the quality of educational programmes, methods are used to assess their functioning for the further development and improvement of educational programmes, such as: annual evaluation of employees at the end of the year according to specially approved evaluation forms using evaluation criteria for each type of position; quarterly monitoring of the QM & PSD performance of the Center Quality Programme, which includes monitoring of incidents, complaints, key performance indicators, patient satisfaction, audit of medical records and compliance with national accreditation standards; as well as assessment of the quality of the educational process, assessment of students' educational achievements.

8.5 Requirements and regulations

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

Conclusions of the EEC on the criteria. Compliant from 15 standards: fully -14, partially -1, non-compliant - 0

Standard 8: Implemented

Recommendations for improvement identified during the external visit:

1) Implement academic mobility of residents. Improve mechanisms for financing academic mobility of residents, participation of residents in international events.

Standard 9: CONTINUOUS RENEWAL

Evidence of compliance:

The NSOC provides procedures for the regular review and updating of the process, organizational structure, as well as the shrinking of the educational process with the improvement of the material and technical base (New Medical Corps of the NSOC), as well as the content, final results/competencies, assessment methods and educational environment of the CPD and residency programmes, taking into account the changes in the needs of health care of the Republic of Kazakhstan and the development of new modern technologies, new regulatory documentation, and changes in society.

Conclusions of the EEC on the criteria. Compliant with 7 standards: fully -6, partially -1, non-compliant -0

Standard 9: Implemented

Recommendations for improvement identified during the external visit:

1) Develop and expand innovative methods and technologies for teaching residency programmes.

6. Recommendations for the improvement of the educational programme 7R01104 "Gastroenterology, including children's":

- 1) Broader involvement of stakeholders in the formation of the mission and determination of the final results of the residency programme (**Standard 1,** 1.4.1., 1.4.2.).
- 2) The educational programme should include a description of teaching methods that allow to form the residents' academic knowledge, as well as the necessary skills and abilities that can affect their personal development and can be used in their future career (clause 2.1.9).
- 3) It is recommended to include in the educational programme in the specialty 7R01104 "Gastroenterology, including children's" topics on the scientific foundations and methodology of medical research, including clinical studies and clinical epidemiology (clause 2.2.1).
- 4) The educational programme should indicate the list of clinical bases where residents of gastroenterologists are trained, including where competencies are formed to provide medical care to patients at the PHC level (the area provided for educational areas, clinical units) (clause 2.5.1).
- 5) The educational programme in the specialty 7R01104 "Gastroenterology, including children's" should include a description of the methods and assessment tools used to determine the level of formation of competencies of residents studying under the educational programme (clause 3.1.4)
- 6) In the educational programme in the specialty 7R01104 "Gastroenterology" it is recommended to specify the criteria for admission of a resident to the intermediate and final certification. Describe the method used to assess practical skills in the final certification of residents (**Standard 3, cl.** 3.1.4., 3.1.5)

- 7) It is recommended to develop and implement mechanisms for studying and documenting the reliability, validity and fairness of evaluation methods. (clause 3.1.6)
- 8) 4) When conducting the final certification, it is recommended to involve external examiners in **the** certification commission (3.1.8).
- 9) 1) It is recommended to develop an internal regulatory document of the NSOC, which defines the policy of admission to the residency with a description of the procedure for conducting entrance examinations for the educational programme of the residency, as well as the transfer of residents from other national or international programmes (St 4, cl. 4.1.3., 4.1.4)
- 10) Provide for the inclusion of resident associations and organizations in the process of developing the admission and selection policy for residency educational programmes (**Standard 4**, clause 4.1.8).
- 11) In the specialty "Gastroenterology, including children's" the annual percentage of employment is the lowest in comparison with other specialties of the residence and makes on the average 72%. It is recommended to describe what work is carried out to improve the career guidance and employment of graduates (Standard 4, 4.3.6).
- 12) It is recommended to continue to form a library fund used for training in the educational programme in the specialty 7R01104 Gastroenterology, including children's" (clause 6.1.1)
- 13) 1) Involve foreign experts and partners for the evaluation of **the** educational programme
- 14) Implement academic mobility of residents, improve mechanisms for financing academic mobility of residents, participation of residents in international events (**Standard 8**).
- 15)1) Develop and expand innovative methods and technologies for teaching residency programmes.

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 **7R01104** "Gastroenterology, including children's" of 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

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Expert - Resident Representative

Baymukhanov Dauren Samarkhanovich

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

	(generalization)				
		7.00	Est	imatior	1
Standard	Evaluation Criteria	Number of standards	Fully compliant	Partially compliant	Not compliant
1	MISSION AND END OUTCOMES	17	15	2	
2	EDUCATIONAL PROGRAMME	31	28	3	
3	ASSESSMENT OF STUDENTS	11	8	3)
4	STUDENTS	30	26	4	
5	FACULTY	7	7		
6	EDUCATIONAL RESOURCES	21	20	1	
7	PROGRAMME EVALUATION	15	14	1	
8	GOVERNANCE AND ADMINISTRATION	15	14	1	
9	CONTINUOUS RENEWAL	4	3	1	
	Total:	151	135	16	

Attachment 1.

Attachment 2.

List of documents studied by EEC members as part of the external evaluation of the educational programme: 7R01104 "Gastroenterology, including children's"

No	Names of documents	Quantity	Date of approval
1.	Educational programme in the specialty	1	EMC dated August 19, 2021,
	7R01104 "Gastroenterology, including		Minutes No.3
	children's"		
2.	Certificate of accreditation of the National	1	Series MK No. 005912 dated
	Scientific Oncology Center LLP as a subject		18.10.2019
	of scientific and (or) scientific and technical		
	activity		
3.	State license for medical activities	1	19005228 dated 01.03.2019
4.	State License for Pharmaceutical Activities	1	19004614 dated 25.02.2019
5.	Annex to the license for educational	1	KZ81LAA00007958 dated
	activities		December 13, 2016 on the
			basis of Order No.537 of the
			Acting Chairperson of the
			Committee for Control in the
			Sphere of Education and
			Science of the Ministry of
			Education and Science of the
			Republic of Kazakhstan dated
			July 5, 2019
6.	Rules for the organization of the educational	1	No.106-OD dated July 5, 2019
	process in the residency.		