



«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING

**IAAR STANDARDS FOR SPECIALISED
ACCREDITATION OF DOCTORAL
EDUCATIONAL PROGRAMMES (PhD)
(based on WFME/AMSE standards)
(the Republic of Kazakhstan)**

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING



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IAAR STANDARDS FOR SPECIALISED ACCREDITATION OF DOCTORAL EDUCATIONAL PROGRAMMES (PhD) (the Republic of Kazakhstan)

Astana 2018

Foreword

1. DEVELOPED AND INTRODUCED by the Non-Profit Institution "Independent Agency for Accreditation and Rating".

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STANDARDS FOR SPECIALISED ACCREDITATION

Basic Provisions

1. Scope of Application

1.1 These standards are developed in accordance with the Law of the Republic of Kazakhstan "On Education", international accreditation standards for quality improvement in medical education (WFME / AMSE) and establish requirements for medical educational institutions and specialised accreditation of doctoral educational programme.

1.2 These standards determine the requirements for the specialised accreditation of doctoral educational programme.

1.3 This standard is used during the specialised accreditation procedure of doctoral educational programme of medical educational institution regardless of its status, legal corporate form, departmental subordination and form of ownership.

1.4 These standards can also be used by a medical educational institution for internal evaluation of activities and development of appropriate internal regulatory documentation.

2. Normative References

This standard uses references to the following regulatory documents:

2.1 The Law of the Republic of Kazakhstan "On Education" dated June 27, 2007 No. 319-III.

2.2 The Law of the Republic of Kazakhstan "On Technical Regulation" dated November 9, 2004 No. 603.

2.3 The Law of the Republic of Kazakhstan "On Introducing Amendments and Addenda to Some Legislative Acts of the Republic of Kazakhstan on the Expansion of Academic and Managerial Independence of Higher Educational Institutions" dated July 4, 2018 No. 171-VI.

2.4 The Law of the Republic of Kazakhstan "On Accreditation of the Conformity Assessment" dated July 5, 2008 No. 61-IV.

2.5 Message of the President of the Republic of Kazakhstan N.Nazarbayev to the people of Kazakhstan "Five Social Initiatives of the President" dated March 5, 2018.

2.6 Order of the Minister of Education and Science of the Republic of Kazakhstan "On Approval of the Rules for the Recognition of Accreditation Bodies, Including Foreign Ones, and the Formation of a Register of Recognised Accreditation Bodies, Accredited Educational Organisations and Educational Programmes" dated November 1, 2016 No. 629.

2.7 Order of the Minister of Education and Science of the Republic of Kazakhstan “On Approval of State Compulsory Educational Standards for All Levels of Education” dated October 31, 2018 № 604.

2.8 Order of the Minister of Education and Science of the Republic of Kazakhstan “On Approval of the Standard Rules for the Activities of Educational Organisations of the Respective Types” dated October 30, 2018 No. 595.

2.9 Order of the Minister of Education and Science of the Republic of Kazakhstan " "On Approval of Rules for Organisation of the Educational Process Using Credit Education Technology" dated April 20, 2011 No. 152.

3. Terms and Definitions

This standard applies the terms and definitions in accordance with the regulatory documentation as specified in paragraph No. 2.

In addition these standards establish the following definitions:

Academic Mobility: transfer of students or lecturers-researchers for training or research for a certain academic period (semester or academic year) to another organisation of higher education and (or) postgraduate education (domestically or abroad) with mandatory re-crediting of completed curricula, disciplines in the form of academic credits in their organisation of higher education and (or) postgraduate education or to continue studies in another organisation of higher and (or) postgraduate education.

Accreditation Of Educational Programs: the procedure of recognition by the accreditation body of compliance of educational programmes (specialty) with the established standards (regulations) of accreditation in order to provide objective information on their quality and confirm the existence of effective mechanisms for its increase.

Analysis: a research method characterised by the identification and/or study of individual parts of the object of accreditation, the process of determining, collecting data to assess the quality of educational services.

Site Visit of the External Expert Panel: a generally accepted component of the holistic accreditation process, which provides for verification of reality compliance with a previously submitted self-assessment report of the higher education institution, assessing the quality and effectiveness of educational services provided, interviewing and questioning stakeholders, as well as developing recommendations for improving the quality.

European Credit Transfer and Accumulation System (ECTS): a student-centered method of planning, describing educational programmes, recording and recognising learning outcomes, as well as monitoring the dynamics of a student's progress along an individual educational trajectory, by determining the laboriousness (labor intensity) of disciplines for all its components.

Doctorate: a professional educational training programme of postgraduate study, directed to the training of scientific, pedagogical staff and (or) with conferment of a higher degree of doctor of philosophy (PhD), doctor on profile.

Doctor of Philosophy (PhD): the degree awarded to persons who have mastered the doctoral programme in the scientific and pedagogical field and defended a dissertation in the Republic of Kazakhstan or outside its borders, recognised in the manner established by the legislation of the Republic of Kazakhstan.

Doctor on Profile: the degree awarded to the persons who mastered the programme of doctoral studies for the respective sphere of professional activity and defended the dissertation in the Republic of Kazakhstan or beyond its limits, recognised in the order established by the legislation of the Republic of Kazakhstan;

Doctoral Dissertation: scientific work, which is an independent research that develops theoretical concepts, the totality of which can be qualified as a new scientific achievement, or a scientific problem is solved, or scientifically grounded technical, economic or technological solutions are set out, the introduction of which makes a significant contribution in the development of the country's economy.

Quality of Educational Programme: compliance of the level of competencies of students and graduates with the requirements of professional standards and additional requirements established by the organisation implementing educational programmes.

Credit Technology of Training: learning based on choice and self-planning for the students of the sequence of studying disciplines with the accumulation of academic credits.

Educational Programme: the uniform complex of the main characteristics of education including the purposes, results and content of training, the organisation of educational process, ways and methods of their realisation, criteria for evaluation of results of training.

Educational Monitoring: systematic observation, analysis, assessment and prediction of the state and dynamics of changes of the results and conditions of implementation of educational processes, student body, network, as well as rating indicators of achievement of activity of organisations of education.

Organisation of Higher and (or) Postgraduate Education: higher education institution implementing educational programmes of higher and (or) postgraduate education and carrying out research activities.

Assessment: a method for determining the degree of achievement of the planned results of educational services, educational goals of the programme for decision-making and determining further directions for improving quality. Interpretation of data and evidence collected during the analysis.

Self-Assessment Report: a document developed by the higher education institution based on the results of self-assessment and submitted for consideration and decision by the accrediting body.

Quality Assurance Policy: the main directions that characterise the key priorities and value orientations of quality assurance development, determined on the basis of collective discussion and approved by the leadership of the higher educational institution.

Reaccreditation: re-accreditation of the educational programme by a previously accredited accreditation body upon the expiration of the certificate of specialised accreditation.

Learning Outcomes: the volume of knowledge, skills and abilities confirmed by the assessment, acquired and demonstrated by students on mastering the educational programme, and the formed values and attitudes.

Effectiveness: the degree of implementation of the planned activities and achievement of the planned learning outcomes.

Self-Assessment: a procedure for self-assessment of a higher educational institution based on standards and criteria for institutional and (or) specialised accreditation.

Quality System: a set of procedures, units and officials in an organisation that perform certain quality management functions in accordance with the established rules and accepted practices and ensure compliance of all graduates of the educational programme with the requirements established in accordance with professional standards.

Stakeholder: an individual, a group of people or an organisation interested in and / or involved in activities, decision-making in a certain area.

Student-Centered Learning: The fundamental principle of the Bologna reforms in higher education, implying a shift of the emphasis in the educational process from teaching (as the main role of the teaching staff in the "translation" of knowledge) to learning (as an active educational activity of the student).

Academic Programme: a programme that defines for each subject, each discipline and (or) module the content and scope of knowledge, skills, abilities and competencies to be mastered.

Curriculum: a document regulating the list, sequence, volume (labour intensity) of academic subjects, disciplines and/or modules, professional practice, other types of educational activities of students of an appropriate level of education and forms of control.

Expert Assessment: a procedure for obtaining an assessment based on the analysis of the problem under consideration, the opinions of specialists with the aim of subsequent decision-making.

Efficiency: the relationship between the result achieved and the resources used.

4. Abbreviations and Acronyms

These standards use abbreviations in accordance with the regulatory documents specified in section 2, in addition to them, the following acronyms and abbreviations are used:

RK – the Republic of Kazakhstan;

MoH – Ministry of Health of the Republic of Kazakhstan;

MES – Ministry of Education and Science of the Republic of Kazakhstan;

HEI – Higher Educational Institution;

EEP – External Expert Panel;

SAC – State Attestation Commission;

SCES – State Compulsory Educational Standards;

SPDE – State Program for the Development of Education;

CPD – Continuous Professional Development;

CME – *Continuous Medical Education*;

TS – *Teaching Staff*;

NQF – National Qualifications Framework;

NSQ – National System of Qualifications;

EP – Educational Programme;

MM – *Mass-media*;

PhD – Doctor of Philosophy;

SWOT-analysis - *analysis of strengths and weaknesses, challenges and opportunities of organisation, the abbreviation of the English words: S -strengths, W - weaknesses, O - opportunities, T - threats.*

5. General Provisions

5.1 Specialised accreditation of doctoral educational programme (PhD) is carried out on the basis of these standards, which include Standard «Mission and Outcomes», Standard «Research Environment and Educational Resources», Standard «Doctoral Programme», Standard «Admission Policy and Criteria», Standard «Scientific Guidance», Standard «Dissertation», Standard «Evaluation of Dissertations», Standard «Governance and Administration».

5.2 Standards for specialised accreditation of doctoral educational programme are developed on the basis of international standards of the Organisation for PhD Education in Biomedicine and Health Sciences in the European System (ORPHEUS), the Association of Medical Schools in Europe (AMSE), the World Federation for Medical Education (WFME) with the introduction of national characteristics of the health care system and medical education of the Republic of Kazakhstan.

6. The Main Objectives of the Implementation of Specialised Accreditation Standards

6.1 The main objectives of the implementation of specialised accreditation standards are:

- introduction of an accreditation model harmonised with international practice of quality assurance in education;
- assessment of the quality of professional and educational programmes to improve the competitiveness of the national higher education system;
- encouraging the development of a quality culture in higher education institutions;
- assistance to improvement and continuous upgrading of educational programmes of medical educational organisations / research organisations in compliance with the requirements of rapidly changing environment;
- consideration and protection of public interests and consumer rights by provision of authentic information on the quality of education programmes;
- the use of innovation and research;
- public announcement and dissemination of information on the results of accreditation of the doctoral educational programme of of medical educational organisations / research organisations.

7. Principles for the Formation of Specialised Accreditation Standards

7.1 Presented standards for quality assurance of educational programmes of higher professional education are based on the following principles:

- voluntariness – accreditation procedure of educational programme is carried out on a voluntary basis;
- honesty and transparency – internal and external assessment is conducted with the utmost honesty and transparency, ensuring that information is available to all participants in the accreditation process;
- objectivity and independence – internal and external assessment is carried out objectively, independently of third parties (government agencies, HEI administration and public opinion) and the results obtained;
- responsibility of medical educational organisations – primary responsibility for the quality of higher education rests with medical educational organisations;
- confidentiality – information submitted by HEIs is used by the accreditation body confidentially.

7.2 External assessment is performed independently from the third parties (government agencies, medical educational organisations and public organisations).

7.3 Public information countrywide and abroad on accredited educational

programmes is carried out in mass media, including the presentation of information on the web-site of accreditation body.

8. Stages and Procedures for Conducting Specialised Accreditation

8.1 Submission by HEI of the application for the specialised accreditation with copies of the title and permit (authorisation) documentation.

8.2 Consideration of the application of the HEI by the IAAR.

8.3 IAAR decision to start the procedure for the specialised accreditation of an educational programme. Conclusion of the contract between the IAAR and the HEI on specialised accreditation.

8.4 At the request of the educational organisation, the IAAR organises a training seminar for the working group of the educational organisation on the preparation of a self-assessment report in accordance with the criteria of standards and guidelines for specialised accreditation. This training seminar is a voluntary procedure.

8.5 Educational organisation conducts self-assessment according to the requirements established by IAAR. The final report signed by the first head (in Kazakh, Russian and English) of the educational organisation is sent to the IAAR in electronic form and in the amount of 1 (one) copy on paper.

8.6 IAAR carries out an analysis of the self-assessment report of the educational programme. Based on the results of the analysis of the self-assessment report, the IAAR makes one of the following decisions:

- «to develop recommendations on the need to improve self-assessment report»;
- «to conduct an external peer review»;
- «postpone the accreditation period due to the impossibility of carrying out the specialised accreditation procedure due to the non-compliance of the self-assessment report with the criteria of these standards».

8.7 In case of continuation of accreditation, the IAAR forms an EEP, which is approved by the IAAR General Director to assess the EP of the HEI. The quantitative composition of the panel is formed depending on the volume of the external review. It includes representatives of the academic community, stakeholders of Kazakhstan, including employers, students, foreign expert (s).

8.8 In case the decision on continuation of accrediting procedure is taken, the IAAR will agree with the organisation of education the dates of accreditation and schedule of the EEP work plan.

8.9 The duration of the site visit of the panel is usually 3-5 days. During the site visit, the educational organisation creates conditions for the work of the EEP in accordance with the Contract for the Provision of Services:

- provides an office for the work of the EEP with a workplace for each member of the EEP;

- provides for each member of the Panel an electronic and paper version of the self-assessment report;
- provides the necessary modern electronic office equipment in agreement with the representative of the IAAR and the number of EEP members;
- organises a visual inspection of infrastructure and resources, meetings, questionnaires, interviews and other forms of EEP's work in accordance with the EEP's program of the visit;
- provides the requested information;
- organises photography of EEP work.

8.10 At the end of the visit EEP prepares a report on external assessment of HEI's educational programme.

8.11. The report contains a description of the EEP's visit, an assessment of the EP's compliance with the IAAR standards, recommendations to the HEI to improve the quality of the educational programme, recommendations to the Accreditation Council. The proposals to the Accreditation Council contain a recommendation for making a decision (accredit / not accredit) and the recommended accreditation period for each educational programme.

8.12 The EEP's report, including recommendations is prepared by members of the EEP collectively. If one of the members of the EEP makes a different decision that does not coincide with the majority of the EEP members, this is recorded in the text of the report.

8.13 The EEP's report on the assessment of EP and the HEI's self-assessment report of EP serve as the basis for the Accreditation Council's decision on specialised accreditation.

8.14 The Chairman of the EEP presents to the Accreditation Council outcomes of the EEP's visit. If there are objective reasons IAAR General Director appoints a member of the EEP to attend a meeting of Accreditation Council and present a report. Replacement of the Chairman of EEP is made by the order of IAAR General Director.

8.15 The exclusive competence of the IAAR Accreditation Council includes decision-making on accreditation or refusal of accreditation of education programme of the medical education organisation. The composition of the Accreditation Council is determined in accordance with the Regulation on the Accreditation Council. The meeting is held if a quorum is present. Accreditation Council shall have the right to make a grounded decision not corresponding with the EEP recommendations.

The Accreditation Council makes one of the following decisions:

- **«to accredit»:**

1 year - if the criteria are met in general, but there are some shortcomings and opportunities for improvement (in assessing criteria that require improvement in the range of more than 20%, the absence of strong criteria);

3 years - with positive results in general, but with some minor shortcomings and opportunities for improvement (in assessing criteria that require improvement in the range from 10 to 20%, the presence of strong criteria);

5 years - with positive results in general (in assessing criteria that require improvement in the range of no more than 10%, the presence of strong criteria);
7 years - if standards criteria are met in general and best practice examples are available (in assessing the strong criteria at least 10%, and criteria requiring improvement no more than 5%).

- denial of accreditation (in assessing at least one criterion as "unsatisfactory", the absence of strong points).

8.16 In the event of positive decision on accreditation the Accreditation Council of IAAR sends an official letter to the education organisation with the results of the accreditation and a certificate of specialised accreditation of an EP, signed by the Chairman of the Accreditation Council and IAAR General Director. Further, the decision on accreditation of the EP is sent to the Ministry of Education and Science of the Republic of Kazakhstan for inclusion in the Register of Accredited Education Programmes (Register 3) and posted on the IAAR website. The EEP report is also published on the website.

After receiving a certificate of accreditation, the educational organisation publishes on its website a self-assessment report of the EP. By agreement with the IAAR, the educational organisation has the right not to post confidential information specified in the self-assessment report.

8.17 In the event of the Accreditation Council's negative decision on accreditation the IAAR sends a letter to the organisation of education indicating the adopted decision.

8.18. The organisation of education in accordance with the Contract for the Provision of Services and the Regulations on the Commission on Appeals and Complaints Consideration may send to IAAR an appeal against the decision of the Accreditation Council. In case of doubts in the competence of the EEP and representatives of the IAAR, or gross violations committed by members of the EEP, the organisation of education may file a complaint to IAAR.

8.19 If the educational organisation decides to undergo specialised re-accreditation (re-accreditation in the IAAR), then the application for re-accreditation the educational organisation must submit at least 6 (six) months before the end of the EP accreditation period, provided that the post-accreditation monitoring procedure was successfully completed by the educational organisation in accordance with the Regulation on Post-Accreditation Monitoring of the Educational Institutions and (or) Educational Programmes.

8.20 An educational organisation has the right to submit an application no earlier than 1 (one) year after it is denied specialised accreditation or its specialised accreditation is revoked.

9. Follow-Up Procedures

9.1 In the event of positive accreditation decision of the IAAR Accreditation Council, the educational organisation submits to IAAR an Action Plan on the quality improvement under the external expert panel's recommendations (hereinafter - the Plan), which is signed and sealed by the chief executive officer, and also an organisation concludes the Contract for the Provision of Services with the IAAR. The Contract and the Plan are the basis for the post accreditation monitoring.

9.2 In accordance with the Regulation on Post-Accreditation Monitoring of the Educational Institutions and (or) Educational Programmes, accredited education institutions should prepare interim reports according to the Plan. Interim reports are sent to the IAAR before the expected date of post accreditation monitoring.

9.3. Post-accreditation monitoring of the educational program is carried out in accordance with the Regulation on Post-Accreditation Monitoring of the Educational Institutions and (or) Educational Programmes.

9.4. In the event of failure to implement the Plan and the requirements put forward by the IAAR in relation to the post-accreditation monitoring, as well as lack of awareness of the changes carried out in the educational organisation the Accreditation Council shall have the right to adopt one of the following decisions:

- «to temporarily suspend the effectiveness of the EP's accreditation status»;
- «to revoke accreditation of EP by excluding it from the National Register 3, which may result in the cancellation of all previously achieved results of accreditation».

9.5 If the educational organisation refuses to conclude a Contract with the IAAR on post-accreditation monitoring, the IAAR Accreditation Council has the right to make a decision to revoke the certificate of accreditation.

10. Procedure for Introduction of Amendments and Additions to Accreditation Standards

10.1 Amendments and additions are introduced to the current accreditation standard for the purpose of further improvement thereof.

10.2 Introduction of amendments and additions to the standard is performed by the IAAR.

10.3 In case of initiating of amendments and additions to current standard by educational organisations and other interested organisations the suggestions and remarks are to be sent by them to the IAAR.

10.4 The IAAR carries out examination of suggestions and remarks obtained from initiators for their validity and appropriateness in the prescribed manner.

10.5 Changes and additions are made to the current accreditation standards after their approval.

11. STANDARDS «MISSION AND OUTCOMES»

11.1 Mission Statement

11.1.1 The medical education institution **must** state its mission and make it known to its stakeholders and the health sector it serves.

11.1.2 The mission statement **must** contain the aims and educational strategy to prepare a competent scientist, researcher at the level of postgraduate medical education.

11.1.3 The medical education institution **must** ensure that the stated mission encompasses the health problems of society, the needs of the medical and pharmaceutical care system and other aspects of social accountability

11.1.4 The medical education institution **must** have the strategic development plan of the educational programme that is consistent with the stated mission of the medical education institution, including issues of improving the quality of doctoral programmes and approved by the advisory council of the medical education institution / research organisation.

11.1.5 The medical education institution **must** systematically gather and analyse the information on the quality of implementation of doctoral programmes, assess the strengths and weaknesses (SWOT-analysis) on the basis of which the administration together with the advisory council should determine the policy and develop strategic and tactical plans.

11.1.6 The mission and objectives of educational programme of medical education institution **must** comply with available resources, the capabilities of the medical education institution / research organisation and market requirements and ways of their support must be determined. The medical education institution must provide access to information about the mission, objectives of the educational programme of the medical education organisation for the public (the availability of the information in mass media, on the web-site of HEI). The mission and objectives of the medical education institution / research organisation must be approved by the advisory council.

11.2. Participation in Formulation of Mission

11.2.1 The medical education institution **must** ensure that its principal stakeholders participate in developing (formulating) the mission of the educational programme.

11.3 Institutional Autonomy and Academic Freedom

The medical education institution **must** have institutional autonomy to develop and implement policies for which its faculty/academic staff and administration are responsible, especially regarding:

11.3.1 design of the curriculum;

11.3.2 use of the allocated resources necessary for implementation of the curriculum.

The medical education institution **should** ensure academic freedom for its staff and doctoral students:

11.3.3 in addressing the actual curriculum where it would be allowed to draw upon different perspectives in description and analysis of issues in medicine;

11.3.4 in exploring the use of new research results to improve the study of specific disciplines / issues without expanding the curriculum.

11.4 Educational Outcomes

11.4.1 The medical education institution **must** define the intended educational outcomes that doctoral students should exhibit upon graduation of the doctoral programme.

11.4.2 Education in the doctoral programme **must** provide doctoral student with the competencies that will enable them to become a qualified researcher capable of conducting independent scientific research in accordance with the principles of best research practices.

Other competencies (knowledge, skills, and attitudes) corresponding to the doctoral programme **must** include:

11.4.3 demonstration by the doctoral students of systematic understanding of the field of study and mastery of the skills and methods of research in their field;

11.4.4 demonstration by the doctoral students of the ability to form, develop, implement and adapt an original research in the context of existing academic works at the level that is required for publication in the international peer-reviewed journals;

11.4.5 demonstration by the doctoral students of leadership skills, the ability to direct the work of others, project management, ability to teach and transmit knowledge;

11.4.6 the ability to share insights in their research field with the academic advisors, wide academic community and society as a whole;

11.4.7 the ability to assist within academic and professional environment to the technological, social or cultural progress in a society based on knowledge.

11.4.8 Completion of the doctoral programme **must** have potential benefits for those who continue their career outside the healthcare institution, and apply

their skills gained during the mastering the doctoral programme, including - a critical analysis, evaluation and solution of complex problems, the ability to transfer new technologies and generate new ideas.

11.4.9 The medical education institution / research organisation **should** ensure that the regular process of renewal and restructuring leads to a modification of education outcomes of graduates in accordance with the responsibilities incumbent upon the graduates after the doctoral programme completion.

12. STANDARDS «RESEARCH ENVIRONMENT AND EDUCATIONAL RESOURCES»

12.1 Research Environment

12.1.1 The success of the individual doctoral programmes **must** be ensured by the arrangement of a strong and effective research environment.

The quality of the research environment **must** be evaluated by analysing:

12.1.2 the publication of research results (number of publications, impact factor, etc.) in major of doctoral programme in medical education institution / research organisation.

12.1.3 the involvement level of external funding for carrying out research in medical education institution / research organisation.

12.1.4 the number of qualified and competent teachers, researchers in the group, at the faculty, educational institution.

12.1.5 national and international co-operation with research teams of medical organisations, universities, research centers.

12.1.6 Research **must** be carried out in accordance with international ethical standards and approved by the appropriate and competent ethics committees. In the research doctoral students must comply with international ethical standards: Declaration of Helsinki II (clinical trials), the European Union directive 2010/63/EU (animal studies) and the Oviedo Convention (Bioethics).

12.1.7 In order to grant access to the facilities necessary for writing a dissertation, doctoral programmes **must** include training in other laboratories, preferably in another country, thus providing internationalisation.

12.1.8 Implementation of doctoral programme **must** be conducted in compliance with the conditions of mutual respect, shared responsibility of the academic advisor and a doctoral student.

12.1.9 The medical education institution / research organisation **should** study the possibilities of providing joint doctoral programmes with the award of degrees from both universities and joint study guide to support cooperation between higher education institutions.

12.1.10 The medical education institution / research organisation **should** ensure that the process of renewal of the educational resources are in line with the changing needs, such as a admission of doctoral students, the number and profile of academic staff, doctoral programme.

The medical education institution **should**:

12.1.11 provide sufficient autonomy in resource allocation, including a decent remuneration of teachers in order to achieve the education outcomes;

12.1.12 in the allocation of resources, take into account the scientific achievements in the field of medicine and public health problems and their needs.

12.2 Physical Facilities

The medical education institution / research organisation **must** have the logistics meeting licensing parameters, which include criteria:

12.2.1 classrooms, laboratories and equipment **must** be modern and comply with the goals and objectives of doctoral programme;

12.2.2 doctoral students must be provided with conditions for independent learning and research.

12.2.3 The medical education institution / research organisation **must** have adequate resources for the proper implementation of doctoral programme and distribute them to the needs. The institution's resources must ensure:

- admission of doctoral students,
- providing training in doctoral programme,
- implementation of the dissertation (thesis),
- scientific advising,
- counselling of the doctoral students,
- consideration, review and evaluation of the dissertation (thesis),
- award of academic degree,
- operating costs,
- the cost of participation in training courses, international scientific conferences,
- tuition in doctoral programmes in establishments where it is practiced.
- resources also include a doctoral student scholarship / salary, but the amount of payment may vary.

12.2.4 Resource policy **must** be aimed at support and ensuring the continuous professional development of teachers of doctoral programme.

The medical education institution **must**:

12.2.5 provide a safe environment for staff, doctoral students, patients and those who care for them, including those providing the necessary information and protection against harmful substances, microorganisms, compliance with safety regulations in the laboratory and using the equipment.

12.2.6 The medical education institution **should** improve the education

environment of doctoral students through regular renewal, expanding and strengthening the facilities and resources, which must match the development in the practice of teaching.

12.3 Information Technology

The medical education institution / research organisation **must** have the information support meeting the goals and objectives of doctoral programme:

12.3.1 the library **must** contain the necessary learning materials - educational, technical, scientific and reference literature, various periodic medical publications, etc.;

12.3.2 Doctoral students must have timely and easy access to library resources.

12.3.3 The library **must** have a basic technical equipment to support the daily activities: fax machines, copiers, computers, printers, available for public use, and phones with voice mail or answering machine.

12.3.4 The library **must** have information website. The web site may include the following elements: links, forms interlibrary loan, electronic full-text journal articles, and feedback form.

12.3.5 The medical education institution / research organisation **must** regularly monitor library resources to learn and implement strategies to meet current and future needs of doctoral students.

12.3.6 Doctoral students **must** have computer classes and terminals with access to information resources (LAN, Internet) for use.

12.3.7 In the medical education institution / research organisation there **must** be control over availability and appropriate use of information resources by the doctoral students.

12.3.8 The medical education institution / research organisation **must** constantly update, improve and expand the base of information resources.

12.3.9 The medical education institution/ research organisation **must** open and constantly update its website's section on the doctoral degree programmes containing the following information:

- structure and staff of the doctoral department, responsibilities of a head and staff of the department;
- admission policy, including clear rules on the selection process of doctoral students;
- a list of doctoral programmes;
- structure, duration and content of the doctoral programmes;
- criteria for the appointment of an academic advisor, outlining the characteristics, responsibilities and qualifications of an academic advisor;
- methods used to assess the doctoral students;
- criteria for execution and writing of a dissertation;
- description of the procedures for the dissertation defense;

- description of a work of the Dissertation Council (regulations, composition, announcements) (if applicable);
- program of quality assurance and regular evaluation of doctoral programme;
- information about doctoral students taking into account the year of study.

13. STANDARDS «ADMISSION POLICY AND CRITERIA»

13.1 The medical education institution / research organisation **must** define and implement a policy of admission, including a clearly defined position on the process of selection of doctoral students.

13.2 The medical education institution/ research organisation must establish a relationship between the selection of doctoral students and the mission of medical education institution, educational programme and the desired quality of graduates.

13.3 To ensure the quality of doctoral programmes, doctoral students' selection **must** be based on competition and transparency in the selection process.

13.4 Candidates for the doctoral programme **must** have a level of education corresponding to the degree of Master of Science in the appropriate major of doctoral programme, or completed training in a residency in medical specialties.

13.5 Before enrolling doctoral students, the medical education institution / research organisation **must** assess the quality of the research project to be carried out by a doctoral student.

13.6 Once enrolled in a doctoral program the doctoral thesis and advisors for doctoral student must be approved.

13.7 After enrolling in doctoral programme the doctoral dissertation subject and advisors for doctoral student must be approved.

13.8 Subject of the dissertation must be evaluated and approved by a panel of independent experts through external written evaluation, or on the basis of the presentation of research work, including:

- the expected results of the implementation of the research project, which must be completed by writing a dissertation in accordance with the required quality standards (standard "Dissertation"), within a period of time determined by the doctoral programme;
- the degree of innovativeness and creativity of a research project;
- qualification of the academic advisors (standard "Scientific Guidance").

13.9 Doctoral students **must** have the rights and obligations comparable to the status of medical education institution / research organisation where the scientific research work is carried out.

13.10 In cases where the doctoral student is forced to seek additional sources of income there **must** be provided an additional time required to

complete the training programme.

The medical education institution / research organisation **should** ensure that the process of renewal and restructuring leads to:

13.10 an adaptation of admission policy of doctoral students subject to changing expectations and circumstances, human resource needs, changes in the system of postgraduate education and the needs of the doctoral programme.

14. STANDARDS «DOCTORAL PROGRAMME»

14.1 The medical education institution / research organisation **must** define the purpose and objectives of the doctoral programme.

14.2 Doctoral programme **must** be based on the performance of the original research, courses, and other types of works that require analytical and critical thinking.

14.3 Doctoral programme **must** be structured with a clear time limit, equivalent to 3 years of full-time.

14.4 Doctoral programme **must** include the compulsory courses alongside with the preparation of the dissertation research. A significant part of the training programme must include training of doctoral students in specific skills, which may consist of:

- training doctoral students the skills to present the research results (oral/poster/documents) for academic and non-academic audience,
- project management,
- writing grant applications,
- critical evaluation of scientific literature,
- guidance of the technical personnel and doctoral students,
- professional development and collaboration,
- other.

14.5 Doctoral programme **must** be performed under the academic guidance.

14.6 The medical education institution / research organisation **must** define the teaching and learning methods used.

14.7 Doctoral programme **must** ensure the training to doctoral students of ethics rules and responsible conduct of research.

In the medical education institution / research organisation **must** be mechanisms:

14.8 allowing the doctoral students, if necessary, to fulfill part of their doctoral programme at another institution, including in other countries;

14.9 ongoing progress evaluation of implementation of doctoral student's research throughout the doctoral programme.

14.10 The medical education institution / research organisation **must** ensure the confidentiality for the doctoral students who receive advice on doctoral programme, academic advising, personal questions.

14.11 The medical education institution **must** ensure that the educational programme is implemented in accordance with the principles of equality.

14.12 The medical education institution / research organisation **must** design an appeal mechanism, which allows doctoral student to revise the decision regarding their programmes and evaluation of their dissertations.

14.13 The medical education institution / research organisation **must** make regular assessments of the quality of the doctoral programme, including feedback from the academic advisors and doctoral students.

The medical education institution **should** ensure that the process of renewal and restructuring leads to:

14.14 adaptation of educational programme model and methodological approaches in training to ensure their appropriateness and relevance;

14.15 adjustment of doctoral programme elements and their relationships in accordance with the advances in medical science, with changing demographics conditions and health/disease pattern of the population and socio-economic and cultural conditions.

14.16 improvement in the process of monitoring and evaluating the doctoral programme in accordance with changes in the education outcomes and teaching and learning methods.

15. STANDARDS «SCIENTIFIC GUIDANCE»

15.1 Each doctoral student must have an academic advisors, one of whom is foreign, to cover all aspects of the programme.

15.2 The number of doctoral students assigned to the academic advisor must be adequate to his workload.

15.3 Academic advisors may be advisors of the doctoral students of other institutions, both in the country and abroad.

15.4 A qualified academic advisor **must** have a doctorate or equivalent degree, be an active scholar with research publications in peer-reviewed literature.

15.5 In selecting and appointing of the advisor, his research experience and international connections **should** be analysed.

15.6 The medical education institution / research organisation **must** have clearly defined duties and responsibilities of the academic advisor.

15.7 Academic advisors **must** consult regularly their doctoral students.

15.8 The medical education institution / research organisation **should** plan and organise training courses for academic advisors on the policy of implementing the doctoral programmes, main responsibilities of academic

advisors.

15.9 The medical education institution / research organisation **should** provide a document that describes the process of scientific leadership. The document must be signed by an academic advisor, doctoral student and doctoral programme manager.

16. STANDARDS «DISSERTATION»

16.1. Doctoral programme **must** be completed by preparing and defending a dissertation, which is an indicator of the formation of doctoral student's competence in accordance with the educational programme.

16.2. The medical education institution / research organisation **must** define the term for dissertation preparation, limited to 3-year period, unless otherwise stated in the normative legal act.

16.3. The dissertation **must** be written by a doctoral student independently, contain a set of new scientific results and regulations put forward by the author for the public defense, and testifies to the author's personal contribution to science, and also meet one of the requirements:

16.4 contain new evidence-based results that address important scientific problem;

16.5 contain new evidence-based results, the use of which provides solution of applied problem;

16.6 contain new evidence-based theoretical and (or) the experimental results, the totality of which is essential for the development of specific research area.

16.7 Structure of the dissertation **must** include a review of the literature pertaining to the subject of research, detailed analysis of objectives and tasks of research, research methodology, results, discussion, conclusions and future prospects of the study.

16.8 The dissertation, which has practical value, **must** contain information on the practical use of scientific results obtained by the author, confirmed by copyright certificates, patents and other official documents.

16.9 The dissertation **may** be written in Kazakh or Russian.

16.10 In order to ensure international recognition, the dissertation **may** be written and defended in English.

16.11 Abstract of the dissertation **must** be published in Kazakh, Russian and English.

16.12 Summary of the doctoral dissertation must be published in two languages (English, Russian or Kazakh), depending on the primary language of instruction of a doctoral student.

16.13 The results of the dissertation **must** be made available to interested parties (doctoral students, academic advisors, employees of the institution

where carried out the dissertation, to the researchers carrying out research work in the same field, and others categories of stakeholders), i.e. be published if copyright or other reasons do not prevent this.

16.14 Dissertation **may be** published on the home web page of medical education institution / research organisation where the scientific work has been carried out, both release (summaries, abstracts), and in full if the copyright, or other reasons, do not prevent this. The dissertation submitted for defense **must** be published on the website of the university where the dissertation council functions in the specialty of dissertation work.

16.15 The dissertation **must** be accompanied by no less than 7 (seven) publications on the topic of the dissertation, including at least three (3) in scientific publications recommended by the Committee, one (1) in the international journals, three (3) in the documents of international conferences, including one (1) in the documents of foreign conferences. International edition must be in the database of the company Thomson Reuters (ISI Web of Knowledge, Thomson Reuters) or Scopus, and have a non-zero impact factor, unless otherwise stated in the normative legal act.

16.16 In the case of joint publications, co-author **should** document that the doctoral student has made a significant and independent contribution to the writing of these papers. Ownership of the results of doctoral student's research must be clearly defined and described. This will avoid re-publication of the results in more than one dissertation.

16.17 The medical education institution / research organisation **must** provide a discussion of the dissertation of a doctoral student at the department(s) meeting, where the dissertation is carried out.

17. STANDARDS «EVALUATION OF DISSERTATIONS»

17.1 The medical education institution / research organisation **must** determine, approve and publish the principles, methods and practices used to assess the doctoral students, including criteria for evaluating scientific work.

17.2 The final evaluation and approval of the dissertation **must** be made by the Dissertation Council.

17.3 The dissertation defense **must** be carried out at the HEI, where the Dissertation Council in corresponding field of training doctoral students operates.

17.4 Before submitting documents for consideration to the Dissertation Council, the dissertation **must** be reviewed.

17.5 The reviewers based on the study of the dissertation and published works **must** submit written reviews to the extended meeting of the department that evaluate the relevance of the chosen topic, the degree of validity of scientific statements, conclusions, recommendations made in the dissertation and its practical significance, their novelty, and an opinion is given on the possibility of

passing the subsequent stages of defense for the award of the degree of Doctor of Philosophy (PhD) or doctor in the profile in the relevant specialty.

17.6 Doctoral dissertation defense **must** include both the preparation of a written version and subsequent verbal defense.

17.7 The dissertation defense **must** be open to the public.

17.8 The time between the submission of the dissertation to Dissertation Council and the defense **must** be as short as possible to ensure the future employment of graduates of doctoral programme.

17.9 The dissertation **should** be considered successfully defended if the Dissertation Council makes a positive decision, i.e. 2/3 (two third) members or more of the Dissertation Council present at the meeting voted for. If at least 2/3 (two thirds) of the members of the Dissertation Council participated in the meeting voted for a positive decision, unfavorable decision is taken.

17.10 In case of unfavorable assessment the written version of the dissertation, a doctoral student **should** be given an opportunity to finalise the dissertation. In case of unfavorable assessment in the oral defense, a doctoral student must be presented for re-defense. In exceptional cases, the Dissertation Council may reject the thesis without the possibility of revision.

17.11 The degree of doctor **should** be awarded by the authorised body in case of a positive decision of the Dissertation Council and its petition, which assesses the dissertation and oral defense; expert evaluation of the dissertation work by experts of the authorised body (in the absence of a special status of a medical educational organisation). The degree of doctor **should** be awarded by the HEI in case of a positive decision of the Dissertation Council, which evaluates the dissertation and oral defense in case of a special status of the medical educational organisation.

17.12 In order to achieve independent and competent international expertise, the medical education institution / research organisation **should** actively use information technologies that allow certain members of the Dissertation Council to participate in the assessment process and remote defending of a dissertation.

18. STANDARDS «GOVERNANCE AND ADMINISTRATION»

18.1 Programme Management

18.1.1 Management of the medical education institution / research organisation **must** be effective and ensure the improvement of the educational programme.

18.1.2 The medical education institution / research organisation **must** define the structural unit responsible for the implementation of educational programmes and the achievement of the final learning outcomes.

18.1.3 The structural unit responsible for educational programmes **must** have the authority for planning and implementing the curriculum including the allocation of the granted resources for planning and implementing methods of teaching and learning, assessment of doctoral students, evaluation of educational programmes and courses.

18.1.4 Representatives of doctoral students **must** interact with the management of doctoral studies in the matters of design, governance and evaluation of doctoral programmes.

18.1.5 The involvement of doctoral students in student organisations working on the development of doctoral training programmes **should** be encouraged and facilitated.

18.1.6 The structural unit responsible for educational programmes **should** ensure transparency of the work of governance and its decisions which are published in newsletters, posted on the HEI's website or included in the minutes for review and execution.

18.1.7 The medical education institution **should** plan and implement innovations in educational programmes through a structural unit responsible for educational programmes.

18.1.8 The medical education institution **should** in its advisory body responsible for educational programmes include representatives of other stakeholders, including other participants in the educational process, representation of teaching hospitals and other clinical facilities, representatives of graduates of the medical education institutions, other health professions, who are involved in the educational process, or other faculty members of the university.

The medical education institution **should** ensure that the structural unit responsible for curriculum:

18.1.9 takes into account the environment in which graduates will be expected to work, and modify the programme accordingly.

18.1.10 considers the modification of the educational programme based on feedback from the community and society as a whole.

The medical education institution / research organisation **should** ensure that the process of renewal and restructuring leads to:

18.1.11 an improvement of the organisational structure and principles of doctortal programme governance to ensure the efficient operation and (in the future) to meet the interests of different stakeholder groups in terms of changing circumstances and needs.

18.2 Academic Leadership

18.2.1 The medical education institution **must** clearly define the responsibilities of its academic leadership for development and management of the educational programme.

18.2.2 The medical education institution **should** periodically evaluate its academic leadership in relation to achievement of its mission and intended educational outcomes.

18.3 Educational Budget and Resource Allocation

The medical education institution **must**:

18.3.1 have a clear line of responsibility and authority for resourcing the curriculum, including a dedicated educational budget.

18.3.2 allocate the resources necessary for the implementation of the curriculum and distribute the educational resources in relation to educational needs.

18.3.3 The financial system of the medical education institution **must** be based on the principals of efficiency, effectiveness, priority, transparency, accountability, separation and autonomy of all levels of budgeting

18.3.4 Financial and administrative policy **must** be aimed at improving the quality of the educational programme.

18.4 Administrative Staff and Management

The medical education institution **must** have an administrative and academic staff, including their number and composition in accordance with the qualifications, that is appropriate to:

18.4.1 ensure the implementation of its educational programme and related activities;

18.4.2 ensure good management and resource deployment.

18.4.3 The medical education institution / research organisation **should** develop and implement an internal programme for management quality assurance, including consideration of the need for improvements and regularly review and analyse the management.

18.4.4 The medical education institution / research organisation **must** ensure the implementation of doctoral programme in accordance with the quality management system certified by independent organisations

18.5 Interaction with Health Sector

18.5.1 The medical education institution **must** have constructive interaction with the health and health related sectors of society and government including exchange of information, collaboration, and organisational initiatives that facilitate provision of specialists with the qualifications needed by society.

18.5.2 The medical education institution **must** ensure operational connection between the educational programme and the subsequent stages of professional training.

18.5.3 The medical education institution **should** formalise the collaboration with partners in the health sector that means entering into formal agreements, stating content and forms of collaboration, and/or establishing joint contact and coordination committees as well as joint projects.

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