



INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING

STANDARDS

**of the specialized accreditation
of doctoral program on specialty:**

6D110100 - «Medicine»

6D074800 - «Technology of pharmaceutical production»

6D110400 - «Pharmacy»

6D110200 - «Public Health Care»

Astana 2014

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GENERAL PROVISIONS

Foreword

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

2 **APPROVED AND PUT INTO EFFECT** by the order of the Director of the Non-Profit Institution "Independent Agency for Accreditation and Rating" as of June 12, 2014 no. 23-14-OD (as amended and supplemented by the Order of the Director as of February 15, 2017 no. 8-17-OD).

3 This Standard implements provisions of the Law of the Republic of Kazakhstan "On Education" as of July 27, 2007 no. 319-III.

4 **INITIALLY INTRODUCED**

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Standards are developed taking into consideration the recommendations of the Ministry of Health and Ministry of Education and Sciences of the Republic of Kazakhstan.

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STANDARDS OF THE SPECIALIZED ACCREDITATION

Main provisions

1. Scope

1.1 This standard determines the statutory requirements to the main provisions of standards of the specialized accreditation of the Ph.D. doctoral degree educational programs on the specialties:

- 6D110100 – “Medicine”;
- 6D110200 - “Public health”;
- 6D110400 – “Pharmacy”;
- 6D074800 – “Technology of pharmaceutical production” of medical educational institutions / scientific organizations.

1.2 This standard is used during the accreditation procedure of the above mentioned Ph.D. doctoral degree educational programs of medical educational institutions / scientific organizations regardless of their status, legal corporate form, institutional subordination and form of ownership.

This standard may also be used by:

- a) medical organizations of education for internal evaluation and external assessment of educational program;
- b) to develop correspondent internal regulatory documents.

2.Regulatory References

This standard contains references to the following regulatory documents:

2.1 The Code of the Republic of Kazakhstan "On public health and health care system" dated on September 18, 2009 No 193-IV.

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

2.3 The Law of the Republic of Kazakhstan "On Education" as of June 27, 2007 no. 319-III.

2.4 The Law of the Republic of Kazakhstan "On accreditation of the conformity assessment" as of July 5, 2008 no. 61-IV.

2.5 Decree of the President of Kazakhstan as of March 1, 2016 no. 205 “On approval of the State Program on the Development of Education and Science of the Republic of Kazakhstan for 2016-2019”.

2.6 The Code of the Republic of Kazakhstan "On public health and health care system" dated on September 18, 2009 No 193-IV.

2.7 Governmental decree of the Republic of Kazakhstan as of August 23, 2012 no. 1080 "On approval of the state compulsory standards of education of the correspondent levels of education."

2.8 Order of the Minister of Education and Science of the Republic of Kazakhstan as of April 20, 2011 no. 152 "On approval of the Rules for organization of the educational process based on the credit technology of learning."

2.9 Order of the Minister of Education and Science on November 1, 2016 no. 629 "On approval of Recognition rules of the accreditation bodies, including foreign, and the formation of the register of recognized accreditation bodies, accredited educational organizations and educational programs."

2.10 Standards "Institutional accreditation of medical higher educational institutions" approved by the Order of the Director NPO "Independent Agency for Accreditation and Rating" as of November 26, 2013 no. 18-13- OD.

3. Terms and Definitions

This standard applies the terms and definitions in accordance with the Laws of the Republic of Kazakhstan "On Education" as of July 27, 2017 no. 319-III, the Republic of Kazakhstan Governmental Decree as of August 23, 2012 no. 1080 "On approval of the state compulsory standards of education of the correspondent levels of education" and uses the following definitions:

3.1 Doctoral degree - postgraduate education, academic programs of which focus on training scientific, educational and (or) professional activities with the award of the degree Doctor of Philosophy (Ph.D.), Doctor by specialization.

In accordance with the principles of the "Bologna process" doctoral programs form a "third cycle" of higher education after undergraduate and master degree cycles. The main component of the third cycle is learning through the original research.

3.2 Doctor of Philosophy (Ph.D.) – a degree awarded to individuals who have mastered the program of doctoral studies in scientific and pedagogical field and defended the dissertation paper in the Republic of Kazakhstan or abroad, recognized in accordance with the statutory procedure established by legislation of the Republic of Kazakhstan.

3.3 Doctoral dissertation paper - scientific paper, which is a self-study, which contains self-developed theoretical propositions, the overall outcomes of which can be qualified as a new scientific achievement, or solved scientific problem, which has important socio-cultural or economic importance, or scientifically based technical, economic or technological decisions, the introduction of which makes a significant contribution to the development of the national economy.

3.4 Accreditation of educational organizations - the recognition procedure by accreditation body on conformity of educational services to the established standards (regulations) of accreditation aiming to provide objective information about the quality and to confirm the availability of effective mechanisms to quality enhancement;

3.5 Accreditation bodies - legal entities that develop standards (regulations) and accredit educational organizations based on the developed standards (regulations);

3.6 Institutional accreditation - the quality evaluation process of the educational organization by the accreditation body for the compliance of the former to the stated status and standards established by accreditation body.

3.7 International accreditation - the process of evaluating the quality of activities by educational organizations (institutional accreditation) and individual educational programs

(specialized accreditation) for compliance with the standards of quality assurance, conducted by the national or foreign accreditation body, entered in the Register 1;

3.8 National Accreditation - the process of evaluating the quality of activities by educational organizations (institutional accreditation) and individual educational programs (specialized accreditation) for compliance with the standards of quality assurance, conducted by the national accreditation body, entered in the Register 1;

3.9 Specialized Accreditation - quality assessment of individual educational programs implemented by the organization of education;

3.10 Standards (regulations) of accreditation - documents of accrediting body, establishing requirements to the accreditation procedure.

4. Designations and abbreviations

This standard uses abbreviations in accordance with the paragraph 2 of the regulatory documents.

Furthermore, this standard uses the following designations and abbreviations:

HEI – Higher Educational Institution;

MOH - Ministry of Health of the Republic of Kazakhstan;

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

CPD – Continuous professional development;

CME – Continuous medical education;

Ph.D. – Doctor of Philosophy

TS – Teaching staff;

MM – Mass-media;

SWOT-analysis - analysis of strengths and weaknesses, challenges and opportunities of organization, the abbreviation of the English language words: S - strengths, W - weaknesses, O - opportunities, T - threat.

5. General provisions

5.1 The specialized accreditation of doctoral PhD program is carried out under these standards, which include: standard “Mission and outcomes”, standard “Scientific research environment and educational resources”, standard “PhD doctoral program”, standard “Policy and criteria of admission”, the standard “Academic advising”, standard “Doctoral Thesis”, standard “Evaluation of theses”, standard “Management and Administration”.

5.2 Specialized accreditation standards of doctoral PhD program are based on the International Standards of the European PhD Education Organization in Biomedicine and Health Sciences (ORPHEUS), the Association of Medical Schools in Europe (AMSE), the World Federation for Medical Education (WFME) with the introduction of the national peculiarities of the health system and health Education of the Republic of Kazakhstan.

5.3 The following forms of accreditation are distinguished:

1) by structure

5.3.1 institutional accreditation;

5.3.2 specialized accreditation;

2) by territorial recognition

5.3.3 The national accreditation;

5.3.4 International accreditation.

5.4 The decision on accreditation is taken by the Council of Accreditation

5.5 The composition of the Accreditation Council consists of the representatives of the MES RK, MH RK, medical education institutions, research organizations, health care organizations, professional associations, employers, public, doctoral students and international experts.

6. Main objectives of specialized accreditation standards implementation

Quality assessment in education programs is a basis of accreditation standards and incorporates the objectives:

6.1 Major objectives of designated accreditation standards implementation are:

6.1.1 implementation of accreditation model, harmonizable with international practice of education quality assurance;

6.1.2 assessment of professional and education programs quality for improving competitiveness of the national system of higher education;

6.1.3 encouragement of quality culture evolution in the higher educational institutions, medical educational institutions, scientific organizations;

6.1.4 assistance to improvement and continuous upgrading of education programs of medical educational organizations in compliance with the requirements of rapidly changing environment;

6.1.5 consideration and protection of public interests and consumer rights by provision of authentic information on the quality of education programs;

6.1.6 use of innovations and scientific investigations;

6.1.7 public announcement and distribution of information on accreditation results for education program by “PhD doctoral program” specialization of the medical education institutions.

7. Principles of specialized accreditation standards establishing

7.1 Presented standards for quality assurance for education programs of higher vocational education are based on the following principles:

7.1.1 voluntariness – procedure of education programs accreditation is performed on a voluntary basis;

7.1.2 honesty and transparency – internal and external assessment are performed maximally honestly and transparently, information accessibility for all participants of performed accreditation process;

7.1.3 objectivity and independence – internal and external assessment are performed reasonably, independent from the third parties (government agencies, HEI administration and public opinion) and obtained results;

7.1.4 responsibility of medical educational organizations – primary responsibility for higher education quality is attached to medical educational organizations

7.1.5 confidentiality – information submitted by HEI is applied by the accreditation agency confidentially;

7.2 External assessment is performed independently from the third parties

(government agencies, medical educational organizations and public organizations).

7.3 Public information countrywide and abroad on accredited education programs is performed in mass media, incl. provision of information on web-site of accreditation agency.

8. Stages and procedures of specialized accreditation performance

8.1 The procedure for the specialized accreditation begins with the filing of the medical educational institution of an application for the specialized accreditation. The application includes a copy of the state license, the annex to the license for the legal grounds of educational activity, a brief description of the correspondent educational institution's activity.

8.2 Consideration by IAAR of the application submitted by educational organization.

8.3 IAAR decision to start the procedure for the specialized accreditation. An agreement between the agency and the medical educational organization to conduct the specialized accreditation is concluded.

8.4 Management the medical educational organization and IAAR organize training for internal experts to explain the criteria and procedures for the specialized accreditation of organization at the special seminars on the theory, methodology and techniques of the specialized accreditation.

8.5 Medical organizations of education conduct self-assessment according to the requirements established by IAAR, and submit self-assessment report (in Kazakh, Russian and English languages) to IAAR in e-format and 1 copy on paper in each of the languages.

8.6 On the basis of self-assessment report of educational organization IAAR has the right to make the following decisions:

- to develop recommendations on the need to refine materials of self-assessment report;
- to conduct an external peer review;
- to postpone the accreditation term due to the inability to conduct the specialized accreditation procedure due to the inconsistency of the self-assessment report to the criteria of these standards.

8.7 In the event accreditation continues IAAR generates external expert panel, which shall be approved by the IAAR director to assess the educational organization. The number of experts is determined depending on the review volume and quantity of educational programs. The structure of the external expert panel includes representatives of the academic community, stakeholders in Kazakhstan, including employers, students, and foreign / international experts.

8.8 In the event accreditation continues IAAR agrees with the medical educational organization on the dates for the specialized accreditation and program for the external expert panel's visit.

8.9 The duration of the external expert panel's visit accounts for 3-5 days. During the visit, the organization of education creates working conditions for the external expert panel under the Service Agreement:

- provides for each member of the Panel an electronic and paper version of the self-assessment report;
- provides the necessary office equipment in consultation with the IAAR representative and based on the number of external expert panel members;
- organizes the inspection of infrastructure and resources, meetings, questionnaires, interviews and other forms of external expert panel's work in accordance with the visit program of the external expert panel;
- provides information requested;
- organizes photo and video recording of the external expert panel's work;
- prepares a video clip for the IAAR Accreditation council meeting containing a brief description of the educational organization and information on the external expert panel visit.

8.10 At the end of the visit external expert panel is preparing a report on the evaluation of medical organization of education and a presentation on the progress of the visit of the external expert panel.

8.11 The report contains a description of the external expert panel's visit, a brief assessment of the educational organization, recommendations to the organization for performance improvement and quality assurance, the recommendation to the Accreditation Council. Recommendations to the Accreditation Council provide information on the status of the educational organization and recommended accreditation period.

8.12 The report of the external expert panel, including the recommendations is prepared by members of the external expert panel collectively.

8.13 The external expert panel's report on the evaluation of educational organization and the self-assessment report of educational organization serve as the basis for the Accreditation Council's decision on the specialized accreditation.

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

8.15 The exclusive competence of the IAAR Accreditation Council includes decision-making on accreditation or refusal of accreditation of educational organization. The composition of the Accreditation Council is determined in accordance with the Regulations of its activities. The meeting is held if a quorum is present. Accreditation Council shall have the right to make a grounded decision not complaint with the recommendations of the external expert panel.

Accreditation Council makes decision:

- on accreditation:
 - 1 year - in the event of compliance with the criteria as a whole, but with some shortcomings and opportunities for improvement;
 - 3 years - with positive results in general, but with some minor shortcomings and opportunities for improvement;
 - 5 years - with positive results in general.
- on non-accreditation.

On expiry of the accreditation period of **5 years** and successful completion of the post accreditation monitoring the educational organization shall be entitled to apply for a re-accreditation. In the case of re-accreditation and its positive results, the organization of education has the right to apply for the period of **7 years**.

8.16 In the event of positive decision on accreditation the Accreditation Council of IAAR sends an official letter to the education organization with the results of the accreditation and a certificate of the specialized accreditation of the educational program, signed by the IAAR Director. The decision on accreditation of educational organization the Agency sends to the MES for inclusion in the Register of accredited educational institutions (Register 3) and publishes the information on the IAAR website. The report of external expert panel is also published on the website.

After receiving the certificate of accreditation the educational organization publishes a self-assessment report on its website.

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

8.18 The organization of education in the prescribed manner under the Service Agreement and the Regulations of the Commission on Appeals and complaints may send to IAAR an appeal against the decision of the Accreditation Council. In case of doubts in the competence of the external expert panel and representatives of the Agency, or gross violations committed by members of the external expert panel, the organization of education may file a complaint to IAAR.

9. Follow-up procedures

9.1 In the event of positive accreditation decision of the IAAR Accreditation Council, the educational organization submits to IAAR an Action Plan on the quality improvement within the framework of the external expert panel recommendations (hereinafter - the Plan), which is signed and sealed by the chief executive officer, an organization enters into a Service Agreement with IAAR. An agreement and Plan are the basis for the post accreditation monitoring.

9.2 In accordance with the Regulations on the post accreditation monitoring procedure of educational organizations / educational programs, accredited education institutions should prepare interim reports under the Plan. Interim reports are sent to the IAAR before the expected date of post accreditation monitoring.

9.3 Post accreditation monitoring of medical institutions of education is conducted as follows:

Duration of the accreditation term	3 years	5 years	7 years
Periodicity of interim reports	One time in 1,5 years	two times in two years	three times in two years
Visit	once	twice	3 times

9.4 In the event of failure to implement the Plan and the requirements put forward by the IAAR in relation to the medical college, as well as lack of awareness of the changes

carried out in the educational organization the Accreditation Council shall have the right to adopt the following decisions:

- to temporarily suspend the effectiveness of the specialized accreditation of the educational program;
- to revoke accreditation of the educational organization by excluding it from the Registry 3, which may result in the cancellation of all earlier achieved results of accreditation.

9.5 In the event of waiver of the educational organization from the post accreditation monitoring through the failure to sign the Service Agreement with IAAR, under the paragraph 9.4 IAAR Accreditation Council may decide to terminate and withdraw accreditation status.

9.6 In the event of early termination and withdrawal of accreditation the educational organizations are not allowed to submit an application for accreditation to IAAR within one year after the decision to revoke the accreditation of educational organization.

10. Procedure for introduction of amendments and additions to designated 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 Independent agency for accreditation and rating.

10.3 In case of initiating of amendments and additions to current standard by educational organizations and other interested organizations the suggestions and remarks are to be sent by them to the Independent agency for accreditation and rating.

10.4 Independent Agency for Accreditation and Rating studies and carries out examination of suggestions and remarks obtained from initiators with respect to justification and expediency.

10.5 Amendments and additions to the current accreditation standard after acceptance thereof are approved by the Order of the Independent Agency for Accreditation and Rating Director redrafted as amended or in the form of brochure-insert to the effective standard.

11. Standard “MISSION AND OUTCOMES”

11.1 Definition of mission

Medical education institution **must** define its mission and bring it to the attention of stakeholders and the health sector.

11.1.1 The mission statement **must** contain objectives and educational strategy, allowing preparation of a competent scientist, researcher at the level of postgraduate medical education.

11.1.2 Medical education institution **must** ensure that the mission statement includes issues of public health, the needs of the health care system and other aspects of social responsibility.

11.1.3 Medical education institution **must** have a strategic plan for the development, in line with the mission statement, goals of medical education institution, including the improvement of the quality of PhD doctoral programs approved by the consultative and advisory council of medical education institution/scientific organization.

11.1.4 Medical education institution **must** systematically collect, store and analyze information about its activities and PhD doctoral program; assess the strengths and weaknesses (SWOT-analysis), based on which the management of medical education institution in conjunction with the consultative and advisory council must determine the policy and develop strategic and tactical plans.

11.1.5 Mission and goals of medical education institution **must** comply with the available resources, possibilities of the medical education institution/scientific organization, the requirements of the market and the ways they support and provide access to information about the mission, goals of medical education institution to the public (the availability of information in the media on the website of the university) must be determined, mission and goals of medical education institution/scientific organization are approved at the Advisory and Consultative Council.

11.2. Participation in the formulation of the mission

11.2.1 Medical education institution **must** ensure that key stakeholders are involved in the development of the mission.

11.3 Institutional autonomy and academic freedom

Medical education institution **must** have institutional autonomy for the development and implementation of policies, which the faculty and administration are responsible for, particularly in relation to:

11.3.1 the development of the educational program;

11.3.2 the use of the resources necessary to implement the educational program.

Medical education institution **should** ensure the academic freedom of its employees and PhD doctoral student:

11.3.3 in respect of the current educational program, which will permit to rely on the various points of view in the description and analysis of issues in medicine;

11.3.4 in the possibility to use the results of new research to improve the study of specific disciplines/issues without an extension of the educational program.

11.4 Educational Outcomes

11.4.1 Medical education institution **must** determine the expected educational outcomes, which PhD doctoral students must demonstrate after the completion of PhD doctoral program.

11.4.2 Studying PhD doctoral program with awarding of PhD degree **must** provide doctoral student with the competencies that will enable them to become qualified researchers capable of conducting independent scientific research in accordance with the principles of good research practice.

Other competencies (knowledge, skills, and attitudes) corresponding to the PhD doctoral program **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 work 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 Completing the PhD doctoral program **must** have potential benefits for those who continue their career outside the healthcare organization, and apply their expertise formed during the mastering the doctoral programs, including - a critical analysis, evaluation and solution of complex problems, the ability to transfer new technologies and generate new ideas.

11.4.9 Medical education institution/scientific organization **must** ensure that the process of renewal and restructuring leads to modification of educational outcomes of graduates in accordance with the responsibilities entrusted on the graduates after the PhD doctoral program.

12. Standard “SCIENTIFIC RESEARCH ENVIRONMENT AND EDUCATIONAL RESOURCES”

12.1 Scientific research environment

12.1.1 The success of the individual doctoral programs **must** be provided by the institution thru strong and effective research environment.

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

12.1.2 the publication of research results (number of publications, impact factor, etc.) on the major of PhD doctoral program in medical education institution/scientific organization.

12.1.3 The level of external funding for research in medical education institution/scientific organization.

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

12.1.5 National and international cooperation with research teams of medical organizations, universities, research centers.

12.1.6 Research **must** be conducted 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 provide access to the facilities necessary to work on a thesis, doctoral programs **must** include training in other laboratories, preferably in another country, thus providing internationalization.

12.1.8 Implementation of the PhD doctoral program **must** take place in compliance with the conditions of mutual respect, planning and shared responsibility of the academic advisor and doctoral student.

12.1.9 Medical education institution/research organizations *should* explore the possibility of joint PhD doctoral programs with award of the degrees by both universities and joint advising to support cooperation between higher education institutions.

12.1.10 medical education institution/scientific organization *should* ensure that the renewal process of educational resources is in line with the changing needs, such as admission of doctoral students, the number and major of academic staff, PhD doctoral program.

Medical education institution **should**:

12.1.12 provide sufficient autonomy in the allocation of resources, including a decent remuneration of teachers pursuant to achievement of the learning outcomes;

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

12.2 Facilities and resources

Medical education institution/scientific organization **must** have the material and technical support meeting the licensing parameters, which include criteria:

12.2.1 classrooms, laboratories and equipment must be modern and appropriate to the goals and objectives of PhD doctoral program;

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

12.2.3 medical education institution/scientific organization **must** have adequate resources for the proper implementation of the PhD doctoral program and distribute them to the needs. Resources of the organization must ensure that:

- receiving doctoral students,
- providing training in doctoral programs
- work on the thesis
- academic advising of doctoral students
- counselling of doctoral students
- consideration, review and evaluation of the thesis
- award of the degree
- operating costs
- the cost of participation in training courses in international scientific conferences
- payment for study of doctoral program in institutions where it is practiced.
- resources also include a stipend/salary of a doctoral student, but the amount of payment may vary

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

Medical education institution **must**:

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

12.2.6 medical education institution *should* improve the learning environment of doctoral students through regular renewal, expanding and strengthening the facilities and resources, to match development in the practice of teaching.

12.3 Information Technology

Medical education institution/scientific organization **must** have the appropriate communications meeting the goals and objectives of PhD doctoral program:

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 Undergraduates **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 of interlibrary exchange, electronic full-text journal articles, and feedback form.

12.3.5 Medical education institution/scientific organization **must** regularly monitor the library resources, study and implement strategies to meet current and future needs of undergraduates.

12.3.6 The doctoral students **should** have computer classes and terminals at their disposal, with access to information resources (LAN, Internet);

12.3.7 Medical education institution/scientific organization **must** control the availability and appropriate use of information resources by the doctoral students;

12.3.8 Medical education institution/scientific organization **must** update, improve and expand constantly the base of information resources.

12.3.9 Medical education institution/scientific organization **must** open and update constantly its website's section of the PhD doctoral program containing the following information:

- The structure and staff of doctoral department, responsibilities of manager and employees of the department;
- Admission policy, including clear rules on the selection process of doctoral students;
- The list of PhD doctoral programs;
- The structure, duration and content of PhD doctoral programs;
- The criteria for the appointment of the academic advisor with outlining the characteristics, responsibilities and qualifications of an advisor;
- The methods used to assess the doctoral students;
- The criteria for registration and writing a thesis;
- Description of the thesis defense procedures;
- Description of the Thesis Bard (regulations, composition, plan of the meetings);
- The program for quality assurance and regular evaluation of PhD doctoral programs;
- Information about the doctoral students with the year of study.

13. Standard “POLICY AND CRITERIA OF ADMISSION”

13.1 Medical education institution/scientific organization **must** define and implement a policy of admission, including the clearly defined regulations in the selection process of doctoral students.

13.2 Medical education institution/scientific organization **must** establish a relationship between the selection of PhD students and the mission of medical education institution, educational program and the desired quality of graduates.

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

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

13.5 Before enrolling PhD doctoral students, medical education institution/scientific organization **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 subject and advisors for doctoral student **must** be approved.

13.7 Subject of the thesis **must** be evaluated and approved by a panel of independent experts through external evaluation of the written description, or on the basis of the presentation of research, including:

- the expected results of the research project, which must be completed by writing a thesis in accordance with the required quality standards (standard “PhD Thesis”), for a period of time determined by the PhD doctoral program;
- the degree of innovativeness and creativity of a research project;
- qualification of the academic advisors (standard “Academic advising”).

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

13.9 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 program.

Medical education institution/scientific organization **should** ensure that the process of renewal and restructuring leads to:

13.10 adaptation of doctoral student admission policy subject to changing expectations and circumstances, human resource needs, change in the system of postgraduate education and the needs of PhD doctoral program.

14. Standard “PhD DOCTORAL PROGRAM”

14.1 Medical education institution/scientific organization **must** define the purpose and objectives of the PhD doctoral program.

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

14.3 PhD doctorate program **must** be structured with a clear time limit equivalent to 3 years of full-time.

14.4 The PhD doctoral program **must** include the compulsory courses alongside with the preparation of the thesis research. A significant part of the training program **must** include training of doctoral students in specific skills, which may consist of:

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

14.5 PhD doctoral program **must** be performed under the academic advising.

14.6 Medical education institution/scientific organization **must** determine the teaching and learning methods used.

14.7 PhD doctoral program **must** ensure training of the doctoral students the rules of ethics and responsible conduct of research.

In medical education institution/scientific organization there must be mechanisms:

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

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

14.10 Medical education institution/scientific organization **must** ensure the confidentiality for the doctoral students who receive advice on doctoral program, academic advising, personal questions.

14.11 Medical education institution **must** ensure that the educational program is implemented in accordance with the principles of equality.

14.12 medical education institution/scientific organization **must** have appeal procedure developed and implemented, which allows the doctoral students to revise the decision regarding their programs and evaluation of their thesis.

14.13 medical education institution/scientific organization **must** make regular assessments of the quality of PhD doctoral program, including feedback from the academic advisors and doctoral students.

Medical education institution/scientific organization **should** ensure that the process of renewal and restructuring leads to:

14.14 adapting of the educational program model and methodological approaches in training, in order to ensure that they are appropriate and relevant;

14.15 adjustment of PhD doctoral program elements and their relationships in accordance with the achievements in medical science, with changing demographic environment and health/disease distribution of the population and socio-economic and cultural conditions.

14.16 improving the monitoring and evaluation process of PhD doctoral program in accordance with changes in the outcomes and methods of teaching and learning;

15. Standard “ACADEMIC ADVISING”

15.1 Each doctoral student **must** have a Min academic advisor and, where appropriate, at least one co-advisor to cover all aspects of the program.

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

15.3 Academic advisors *may* be co-advisors of the doctoral students of other institutions, both at domestic 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 one *should* review its research experience and international connections.

15.6 Medical education institution/scientific organization **must** have clearly defined duties and responsibilities of each academic advisor.

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

15.8 Medical education institution/scientific organization *should* plan and organize training courses for academic advisors in policy of implementing the PhD doctoral programs, main responsibilities of academic advisors.

15.9 Medical education institution/scientific organization *should* stipulate the drawing up a contract, which describes the process of academic advising. The contract must be signed by an academic advisor, doctoral student and doctoral program manager.

16. Standard “PhD THESIS”

16.1. PhD doctoral program **must** be ended by the preparation and defense of the doctoral thesis, which is an indicator of formation of the doctoral student’s competencies in accordance with the educational program.

16.2. Medical education institution/scientific organization **must** define the term of thesis preparation, limited to 3 year period.

16.3. The thesis **must** be written by a doctoral student independently, comprise a plurality of new scientific findings and regulations put forward by the author for the public defense, and is evidence of 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 mission*;

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 A structure of the thesis **must** include a review of the literature pertaining to the subject of the research, a detailed analysis of the purpose and objectives of research, methodological procedures, methodological solutions, results, discussion, finding, conclusions and future prospects of the research.

16.8 The thesis, 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 thesis *may be* written in Kazakh or Russian.

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

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

16.12 Summary of the doctoral thesis **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 thesis **must** be made available to interested parties (doctoral students, academic advisors, employees of the organization where the thesis has been carried out, the researchers carrying out research work in the same field, and others categories of stakeholders), i.e. be published unless copyright or other reasons prevent this.

16.14 Thesis *may be* published on the home web page of medical education institution/scientific organization 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.

16.15 The thesis **must** be accompanied by no less than 7 (seven) publications on the topic of the thesis, 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 Company, and have a non-zero impact factor.

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 thesis.

16.17 Medical education institution/scientific organization **must** provide a discussion of the thesis of a doctoral student at the faculty(s) meeting where the thesis was carried out.

17. Standard “EVALUATION OF THESIS RESEARCH”

17.1 Medical education institution/scientific organization **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 thesis **must** be made by the Thesis Board.

17.3 The thesis defense **must** be carried out at the HEI, where the Thesis Board in corresponding field of training PhD doctoral students operates.

17.4 Thesis **must** pass review.

17.5 The reviewers based on the study of the thesis and published works **must** submit to Thesis Board the written reviews that evaluate the relevance of the chosen topic, the degree of validity of scientific statements, findings, recommendations made in the thesis and its practical significance, their novelty, as well as provide a conclusion about the potential award of the degree of Doctor of Philosophy (PhD) in the relevant specialty.

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

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

17.8 The time between the submission of the thesis to Thesis Board and the defense **must** be as short as possible to ensure the future employment of graduates of doctoral program.

17.9 The thesis **should** be considered successfully defended if the Thesis Board makes a positive decision, i.e. 2/3 (two third) members or more of the Thesis Board present at the meeting voted for. If at least 2/3 (two thirds) of the members of the Thesis Board 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 thesis, a doctoral student **should** be given an opportunity to finalize the thesis. In case of unfavorable assessment in the oral defense, a doctoral student must be presented for re-defense. In exceptional cases, the Thesis Board may reject the thesis without the possibility of revision.

17.11 Degree of PhD doctor **must** be awarded by the medical education institution/scientific organization on the basis of the decision of the Thesis Board, which assesses the thesis and oral defense in accordance with “PhD Thesis”.

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

18. Standard “MANAGMENT AND ADMNISTRATION”

18.1 Program governance

18.1.1 HEI/research organization governance **must** be effective and ensure the improvement of the educational program.

18.1.2 Medical education institution/scientific organization **must** define a structural unit responsible for educational programs and learning outcomes.

18.1.3 The structural unit responsible for educational programs **must** have the authority to plan and implement an educational program, including the allocation of resources allocated for the planning and implementation of teaching and learning methods, evaluation of doctoral students, evaluation of educational programs and courses.

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

18.1.5 The involvement of doctoral students in the work of organizations of studying working on the development of training programs for doctoral students **should** be encouraged and assisted them.

18.1.6 The unit responsible for educational programs **should** ensure transparency in management and decision-making, which are published in the bulletins, posted on the website of the HEI, included in the protocols for review and execution.

18.1.7 Medical education institution **should** plan and implement through a structural unit responsible for educational programs the innovations in educational programs.

18.1.8 Medical education institution **should** include representatives from other relevant stakeholders in the structural unit of medical education institution responsible for educational programs, including other members of the educational process, representatives from clinical facilities, graduates of medical education institutions, health care professionals involved in the process of training or other faculty members of the university.

Medical education institution **should** ensure that the structural unit responsible for the educational program:

18.1.9 takes into account the particular conditions in which graduates will be expected to work, and accordingly modify the educational program.

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

18.1.11 Medical education institution **should** periodically evaluate the academic advising on achieving its mission and learning outcomes.

Medical education institution/scientific organization **should** ensure that the process of renewal and restructuring leads to:

18.1.12 improvement of institutional structure and management principles for PhD doctoral programs to ensure the efficient operation under changing circumstances and needs, and, in the long term, to meet the interests of different stakeholder groups.

18.2 Academic Leadership

18.2.1 Medical education institution **must** clearly define the responsibilities of the academic leadership for the development and management of the educational program

18.2.2 Medical education institution **should** evaluate periodically the academic leadership on achieving its mission and learning outcomes.

18.3 The budget for training and allocation of resources

Medical education institution **must**

18.3.1 have clear range of responsibilities and powers to ensure the educational program resources, including targeted training budget.

18.3.2 allocate the resources needed to deliver the educational program and distribute educational resources in line with their needs.

18.3.3 The system of financing of medical education institution must be based on the principles of efficiency, effectiveness, priority, transparency, accountability, division and independence of all budget levels.

18.3.4 The financial and administrative policy **must** be aimed at improving the quality of the educational program.

Medical education institution organizations **should**:

18.3.5 provide sufficient autonomy in the allocation of resources, including a decent remuneration of teachers in accordance with the achievement of the learning outcomes;

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

18.4 The administrative staff and management

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

18.4.1 ensure the implementation of the educational program and related activities;

18.4.2 ensure the proper management and resource allocation.

18.4.3 Medical education institution/scientific organization **should** develop and implement an internal management quality assurance program, including consideration of the needs to improve, and to review and analysis of management regularly.

18.4.4 Medical education institution/scientific organization **must** ensure the implementation of the PhD doctoral program in accordance with the quality management system certified by independent organizations.

18.5 Interaction with the health sector

18.5.1 Medical education institution **must** have structural interaction with the health sector, with health related sectors of society and government, including the exchange of information, cooperation and initiatives of the organization, which contributes to provision with qualified specialists in accordance with the needs of society.

18.5.2 Medical education institution **must** ensure operational connection between the educational program and the subsequent stages of training.

18.5.3 Medical education should grant official status to cooperation with partners in the health sector, which includes official agreements with indicating the content and forms of cooperation and/or a cooperative contract and the establishment of a coordinating board and carrying out the joint activities.

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