STANDARDS

for initial specialised accreditation (ex-ante) of doctoral education programme (medical and pharmaceutical education) based on WFME/AMSE standards (the Republic of Kazakhstan)

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING
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Astana 2018

FOREWORD

1. DEVELOPED AND INTRODUCED – Non-profit institution "Independent Agency for Accreditation and Rating"

2. APPROVED AND COMMITTED INTO ACTION By Order of the Director of Non-profit Institution "Independent Agency for Accreditation and Rating" No. 68-18/1-OD dated May 25, 2018.

3. These Standards implement norms of the Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 No. 319-III.

4. ORIGINAL HOLDER Independent agency for accreditation and rating: 010000, Astana, st. B. Momyshuly, 2, VP-4G

5. FIRST EDITION

The Standards were developed taking into account recommendations of the RoK Ministry of Health and Ministry of Education and Science.

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1 Main provisions
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1.1 Scope

1.1.1 These Standards are developed in accordance with the RoK Law "On Education", international accreditation standards in accordance with international standards for quality improvement in medical education (WFME/AMSE), and establish requirements for medical educational institutions and conduct of initial specialised accreditation of doctoral studies.

1.1.2 These Standards define requirements for the initial (ex-ante) specialised accreditation of the educational programme of doctoral studies.

1.1.3 This Standard is applied when carrying out the procedure of initial (ex-ante) specialised accreditation of an educational programme of a medical educational organisation, regardless of its status, organisational and legal form, departmental subordination and form of ownership.

1.1.4 These Standards can also be used by a medical education organisation for internal performance assessment and development of appropriate internal regulatory documentation.

1.2 Normative references

This Standard uses references to the following normative documents:

1.2.1 Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 No. 319-III.

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

1.2.3 The Law of the Republic of Kazakhstan "On Amendments and Additions to Certain Legislative Acts of the Republic of Kazakhstan on Expanding the Academic and Management Independence of Higher Education Institutions" dated July 4, 2018 No. 171-VI.

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

1.2.5 Message from the President of the Republic of Kazakhstan N.A. Nazarbayev to the people "Five social initiatives of the President" dated March 5, 2018.

1.2.6 Order of the Minister of Education and Science of the Republic of Kazakhstan "On approval of the Rules for recognition of accreditation bodies including foreign ones, and formation of a register of recognised accreditation bodies, accredited educational organisations and educational programmes" dated November 1, 2016 No. 629.

1.2.7 Order of the Minister of Education and Science of the Republic of Kazakhstan "On approval of state compulsory education standards at all levels of education" dated October 31, 2018 No. 604.

1.2.8 Order of the Minister of Education and Science of the Republic of Kazakhstan "On Approval of the Model Rules for Activities of Educational Organisations of Corresponding Types" dated October 30, 2018 No. 595.

1.2.9 Order of the Minister of Education and Science of the Republic of Kazakhstan "On approval of the Rules for organising educational process on credit technology of education" dated April 20, 2011 No. 152.

1.3 Terms and definitions

This Standard applies terms and definitions in accordance with regulatory acts stated in Clause 2:

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

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

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

European Credit Transfer and Accumulation System; ECTS*:* student-centered method of planning, describing educational programmes, fixing and recognising learning outcomes, as well as monitoring dynamics of student progress along an individual educational trajectory, by determining complexity of disciplines for all its components.

Doctoral studies: postgraduate education which educational programmes are aimed at training personnel for scientific, pedagogical and (or) professional activities, with award of the degree Doctor of Philosophy (PhD), doctor in the profile.

Doctor of Philosophy (PhD): a degree awarded to persons who have completed a doctoral programme in the scientific and pedagogical direction and defended a dissertation in the Republic of Kazakhstan or abroad, and recognised in the manner prescribed by the RoK legislation.

Doctor by profile: a degree awarded to persons who have mastered the doctoral programme in the relevant field of professional activity and defended a thesis in the Republic of Kazakhstan or abroad, recognised in the manner prescribed by the legislation of the Republic of Kazakhstan

Doctoral dissertation: a scientific work that is an independent research that developed theoretical provisions which totality can be qualified as a new scientific achievement; or a scientific problem of important socio-cultural or economic significance is solved; or scientifically based technical, economic or technological solutions are presented implementation of which makes a significant contribution to development of the country's economy.

Educational programme quality: compliance of the level of competence of students and graduates with the requirements of professional standards and additional requirements established by the organisation that implements educational programmes.

Credit technology of teaching: learning based on choice and self-planning by students of sequence of studying disciplines with accumulation of academic credits.

Educational programme: a single set of basic characteristics of education including goals, results and content of learning, organisation of educational process, methods of their implementation, criteria for assessing learning outcomes.

Educational monitoring: systematic observation, analysis, assessment and forecast of the state and dynamics of changes in results and conditions for implementation of educational processes, contingent of students, network, as well as rating indicators of achievements of educational organisations.

Evaluation: a method for determining the degree of achievement of planned results of educational services, educational goals of 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 university based on the results of self-assessment and submitted for consideration and decision by the accredited body.

Initial specialised accreditation (Ex-Ante) is the process of assessing quality of the educational programme of higher and (or) postgraduate medical education in the absence of students and (or) graduation for compliance with the declared status and standards of the accreditation body.

Policy in the field of quality assurance: main directions characterising the key priorities and value orientations of development for quality assurance determined on the basis of collective discussion and approved by leadership of the higher educational institution.

Learning outcomes: the amount of knowledge, skills acquired, demonstrated by the student in mastering educational programme, and formed values and attitudes, confirmed by the assessment

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

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

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

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

Student-centered approach to education: the fundamental principle of the Bologna reforms in higher education which implies a shift in emphasis in the educational process from teaching (as the main role of teaching staff in "translation" of knowledge) to learning (as an active educational activity of the student).

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

Academic plan: a document regulating list, sequence, volume (labor intensity) of academic subjects, academic disciplines and (or) modules, professional practice, other types of educational activities of students of the corresponding level of education and forms of control.

Expert assessment: the procedure for obtaining an assessment based on analysis of the problem under consideration, opinions of specialists for the purpose of subsequent decision making.

Efficiency: ratio between achieved result and used resources.

1.3 Symbols and abbreviations

This Standard uses abbreviations in accordance with the normative documents specified in Clause 2. In addition, the following symbols and abbreviations are used in this Standard:

RoK – Republic of Kazakhstan
RoK MoH – Ministry of Health of the Republic of Kazakhstan;
RoK MES – Ministry of Education and Science of the Republic of Kazakhstan;
HEI – higher education institution;
EEC – external expert committee
SAC – State Attestation Commission
SCES – state compulsory education standards
SEDP – state education development programme
CPD – continuous professional development
CME – continuous medical education
TS – teaching staff
NQF – national qualifications framework
NQS – national qualifications system
EP – educational programme
Mass media – mass media;
PhD –Doctor of Philosophy;
SWOT-analysis – analysis of strengths and weaknesses, problems and opportunities of the organisation, abbreviation of English words: S (strengths) - strengths, W (weaknesses) - weaknesses, O (opportunities) - opportunities, T (threats) - threats.

1.5 General provisions

1.5.1 Initial specialised accreditation of doctoral programmes is carried out according to these Standards, which include: Standard "Mission and learning outcomes", Standard "Research environment and educational resources", Standard "Policy and admission criteria", Standard "Doctoral programme", Standard "Scientific manual", Standard "Management and administration".

1.5.2 The Standards for initial specialised accreditation of doctoral programmes are developed on the basis of International Standards of the World Federation for Medical

Education (WFME), Association of Medical Schools of Europe (AMSE) and European Model for Accreditation of Educational Programmes in Biomedicine and Health Sciences (ORPHEUS), with introduction of national characteristics healthcare system and medical education of the Republic of Kazakhstan.

1.6 Main goals and objectives of introducing standards for initial specialised accreditation

1.6.1 The main goal of introducing standards for initial specialised accreditation is to improve the university educational process in order to ensure training quality of specialists that meet modern requirements of the labor market.

1.6.2 Tasks:

1.6.2.1 introduction of an accreditation model in universities, harmonised with international practice of quality assurance in education;

1.6.2.2 assessment of professional and educational programmes quality to improve competitiveness of the national higher education system;

1.6.2.3 attachment of the educational programme to general strategy and policy of the university in the field of quality, the EP compliance with requirements of the RoK legislation, structural requirements for accreditation of training programmes at the master's level;

1.6.2.4 encouraging development of a culture of quality in higher education institutions;

1.6.2.5 assistance in improvement and continuous improvement of educational programmes quality in medical educational institutions in accordance with requirements of a rapidly changing external environment;

1.6.2.6 consideration and protection of public interests and consumer rights by providing reliable information about quality of educational programmes;

1.6.2.7 use of innovation and research;

1.6.2.8 public disclosure and dissemination of information on results of accreditation of the doctoral programme of medical educational organisations/scientific organisations.

1.7 Principles for formation of standards for initial specialised accreditation

1.7.1 The presented standards for ensuring quality of educational programmes of higher professional education are based on the following principles:

1.7.1.1 voluntariness - the procedure for accrediting educational programmes is carried out on a voluntary basis;

1.7.1.2 honesty and transparency - internal and external assessments are conducted with the utmost honesty and transparency, ensuring that information is available to all participants in the accreditation process;

1.7.1.3 objectivity and independence - internal and external assessment is carried out objectively, independently of third parties (government agencies, university administration and public opinion) and the results obtained;

1.7.1.4 responsibility of medical educational organisations - the main responsibility for quality of higher education rests with medical educational organisations;

1.7.1.5 confidentiality - information provided by universities is used confidentially

by the accreditation body.

1.7.2 External assessment is carried out independently of third parties (government agencies, medical educational organisations and public organisations).

1.7.3 Informing the public in the country and abroad about accredited educational programmes is carried out in media, incl. presentation of information on the website of the accreditation body.

2. The procedure for conducting initial specialised accreditation of an educational programme

2.1 Submission by the university of an application for conducting initial specialised accreditation with attachment of copies of title and permits.

2.2 Consideration of the university application by the IAAR.

2.3 Adoption of a decision by the IAAR to start the procedure for initial specialised accreditation of EP. Conclusion of an agreement between the IAAR and university on conduct of initial specialised accreditation.

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

2.5 Self-assessment by the educational organisation in accordance with the IAAR requirements. 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.

2.6 IAAR analysis of the self-assessment report of educational programme. Based on the results of analysis of the self-assessment report, the IAAR makes one of the decisions:

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

2.7 In case of continuation of accreditation, the IAAR forms the EEC which is approved by the Director General of the IAAR to assess the university EP. The quantitative composition of the commission is formed depending on the scope of external audit. It includes representatives of academic community, stakeholders of Kazakhstan, including employers, students, foreign/foreign experts.

2.8 If accreditation is continued, the IAAR will agree with educational organisation the timing of initial specialised accreditation and EEC Visit Programme.

2.9 Duration of the EEC visit is usually 3-5 days. During the visit, the educational organisation creates conditions for the EEC work in accordance with the Service Agreement:

– represents an office for the EEC work with provision of a workplace for each member of the EEC;

– submits an electronic and paper version of the self-assessment report for each of the commission members;

– provides necessary modern electronic office equipment in agreement with the IAAR representative and as per number of EEC members;

– organises a visual inspection of infrastructure and resources, meetings, questionnaires, interviews and other types of EEC work in accordance with the EEC Visit Programme;

– provides the requested information;

– organises photography of EEC work.

2.10 At the end of the visit, the EEC prepares a report on external assessment of the university EP.

2.11. The report contains a description of the EEC visit, assessment of the EP compliance with the IAAR standards, recommendations to the university on improving the educational programme quality, as well as recommendations of the AC. The AC proposals contain a recommendation for making a decision (accredit/not accredit) and the recommended accreditation period for each educational programme.

2.12 The EEC report including recommendations is formed by the EEC members collectively. If one of the EEC members forms a different decision that does not coincide with the majority of the EEC members, this is recorded in the text of the report.

2.13 The basis for making a decision on initial specialised accreditation of the AC is the report on EP assessment by an external expert commission and report on self-assessment of the university EP.

2.14 Following the visit of the EEC, the Chairman speaks to the AU following the visit of the external expert commission. If there is an objective reason, the General Director of the IAAR appoints a member of the EEC to participate with a report at the meeting of the AC. Replacement of the chairman of the EEC is formalised by the order of the Director General of the IAAR.

2.15 The exclusive competence of the IAAR AC includes making decisions on accreditation or refusal to accredit the EP of a medical educational organisation. The AC composition is determined in accordance with the Regulations on the Accreditation Council. The meeting is held if there is a quorum. The AC has the right to make a decision that does not comply with the EEC recommendations.

The Accreditation Council makes one of the following decisions:

- "accredit":

– for a period of 1 (one) year - if the criteria are met in general, but if there are significant deficiencies and opportunities for improvement (when evaluating criteria requiring improvement of more than 20%, lack of strengths);

− for a period of 3 (three) years - with positive results in general, but with some minor shortcomings and opportunities for improvement (when evaluating criteria requiring improvement from 10 to 20%, if there are strengths);

− for a period of 5 (five) years - with positive results in general (when evaluating criteria requiring improvement of no more than 10%, if there are strengths);

− for a period of 7 (seven) years - upon re-accreditation (re-accreditation), positive results in general and successful completion of post-accreditation monitoring of an educational programme previously accredited for 5 years in the IAAR (when evaluating the criteria of strengths of at least 10%, and requiring improvement of no more than 5%);

- "not to accredit" (when evaluating at least one criterion as "unsatisfactory", in the absence of strengths).

2.16 If the AC makes a positive decision, the IAAR sends an official letter with the decision results and a certificate of the EP initial specialised accreditation signed by the AC chairman and the IAAR General Director to the educational organisation. Further, the decision on the educational programme accreditation is sent to the Ministry of Education and Science of the Republic of Kazakhstan for inclusion in the Register of accredited educational programmes (Register 3) and posted on the IAAR website. The EEC report is also posted on the website.

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

2.17 When the AC makes a negative decision, the IAAR sends a letter to the educational organisation with a justification for the decision.

2.18. The education organisation in accordance with the Agreement on provision of services and the Regulations on Commission for consideration of appeals and complaints may appeal to the IAAR against the AC decision. In case of doubt about the EEC competence and the IAAR representatives, or a gross violation committed by members of the EEC, the educational organisation can send a complaint to the IAAR.

2.19 If the educational organisation decides to undergo specialised re-accreditation (re-accreditation in the IAAR), then the educational organisation must submit the application for re-accreditation at least 6 (six) months before the end of EP accreditation period provided that the post-accreditation monitoring procedure the educational organisation was successful in accordance with the Regulations on procedure for post-accreditation monitoring of educational organisations and (or) educational programme.

2.20 The educational organisation has the right to submit an application not earlier than 1 (one) year after its refusal in initial specialised accreditation or its deprivation of specialised accreditation.

3. Following procedures

3.1 If the IAAR AC makes a positive decision, the educational organisation submits to the IAAR an Action Plan for improving quality within the framework of

recommendations of the external expert commission (hereinafter - the Plan), which is signed by the first head and certified by the seal, and also concludes a Service Agreement with IAAR. The Agreement and the Plan are the basis for post-accreditation monitoring.

3.2 In accordance with the Regulations on procedure for post-accreditation monitoring of educational organisations and (or) educational programmes that have passed the EP initial specialised accreditation, must prepare interim reports in accordance with the Plan. Interim reports are sent to the IAAR before the expected date of post-accreditation monitoring.

3.3. Post-accreditation monitoring of the educational programme is carried out in accordance with the Regulations on procedure for post-accreditation monitoring of educational organisations and (or) educational programmes.

3.4. In case of non-fulfillment by the university of the Plan and the requirements put forward by the IAAR for post-accreditation monitoring, as well as lack of information about the changes carried out at the university, the AC has the right to make one of the following decisions:

- "temporarily suspend the EP accreditation status";
- "withdraw the EP accreditation certificate of the educational organisation by excluding it from the list of Register 3, which may entail cancellation of all previously achieved results of accreditation".

3.5 If the educational organisation refuses to conclude an agreement with the IAAR on post-accreditation monitoring, the AC has the right to make a decision to revoke validity of the accreditation certificate.

4 The procedure for making changes and additions to accreditation standards

4.1 Changes and additions are made to the existing standards of specialised accreditation in order to improve them further.

4.2 The IAAR makes amendments and additions to the standards of specialised accreditation.

4.3 In case of initiation of changes and additions to the existing standards by educational organisations and other interested bodies, proposals and comments are sent to the IAAR.

4.4 The IAAR conducts an examination of proposals and comments received for their validity and appropriateness in the prescribed manner.

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

5. Standard "MISSION AND LEARNING OUTCOMES"

5.1 Mission definition

Medical education organisation **must** define the mission of the educational programme and bring it to the attention of stakeholders and health sector.

5.1.2 Medical education organisation **must** ensure that main stakeholders are

involved in development (formulation) of the educational programme mission.

5.1.3 Medical education organisation **must** ensure that the stated mission includes health problems of society, needs of the medical care system and other aspects of social responsibility.

5.1.4 Medical education organisation **must** ensure that the educational programme mission is consistent with the organisation mission and allow preparation of a competent researcher at the level of postgraduate medical education.

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

5.1.3 Mission of the educational programme**:**
– **must** correspond to available resources, opportunities and market requirements;
– ways to support it **must** be identified;
– **must** be provided with access to information about the educational programme mission for public (availability of information on the university website)

5.1.7 The educational programme mission and goals **must** be discussed at advisory councils/commissions of the university and approved by the university advisory council.

5.1.8 Medical education organisation **must** systematically collect, accumulate and analyze information about its activities in preparation for the educational programme implementation; assess strengths and weaknesses (SWOT analysis) on the basis of which management of a medical education organisation together with an advisory board **must** determine policy and develop strategic and tactical plans.

5.2 Institutional autonomy and academic freedom

5.2.1 Medical education institution that implements doctoral educational programmes **must** have institutional autonomy to develop and implement policies, for which the faculty and administration are responsible, especially with regard to:

5.2.1.1 development of the educational programme.

5.2.1.2 use of allocated resources necessary for implementation of the educational programme.

5.2.2 Medical education organisation **should** guarantee academic freedom to its employees and future doctoral students:

5.2.2.1 in relation to the current educational programme, in which it will be allowed to rely on different points of view in description and analysis of issues in accredited specialties;

5.2.2.2 in possibility of using the results of new research to improve study of specific disciplines/issues without expanding the educational programme.

5.3 Learning outcomes

5.3.1 Medical education organisation **must** determine the expected final learning outcomes that doctoral students will have to show after completing the doctoral programme.

5.3.2 Medical education organisation **must** ensure that doctoral studies with award of a PhD degree, a doctor in the profile will provide future doctoral students with competencies that will allow them to become a qualified researcher capable of conducting independent scientific research in accordance with the principles of good research practice.

5.3.3 Completion of the doctoral programme **must** have a potential benefit for those who pursue careers outside the medical organisation and apply their competencies formed during development of the doctoral programme, including critical analysis, assessment and solution of complex problems, ability to transfer new technologies and synthesis new ideas.

5.3.4 Medical education organisation/scientific organisation **should** ensure that the process of updating and restructuring leads to modification of final learning outcomes of graduates in accordance with responsibilities that are assigned to graduates after graduation from the doctoral programme.

6. Standard "RESEARCH ENVIRONMENT AND EDUCATIONAL RESOURCES"

6.1 Research environments

6.1.1 The success of individual doctoral programmes **must** be ensured by arrengement of a strong and effective research environment.

Quality of the research environment **must** be assessed by analyzing:

6.1.2 publication of research results (number of publications, impact factor, etc.) on profile of doctoral studies in a medical educational organisation/scientific organisation.

6.1.3 level of attracting external funding for scientific research in a medical educational organisation/scientific organisation.

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

6.1.5 national and international cooperation with research groups of medical organisations, universities, research centers.

6.1.6 presence of a procedure/system for compliance with the ethics of scientific research in the medical educational organisation.

6.1.7 Opportunities to provide access to the funds necessary for writing a dissertation, doctoral programmes may include training in other laboratories, preferably in another country, thereby ensuring internationalisation.

6.1.8 Medical education organisation **should** explore possibility of providing joint doctoral programmes with award of degrees from both universities and joint leadership to support cooperation between higher education institutions.

6.1.9 Medical education organisation **should** ensure that the process of updating educational resources will be carried out in accordance with changing needs, such as recruitment of doctoral students, number and profile of academic staff, and doctoral programme.

6.1.10 Medical education organisation **should** be provided with sufficient autonomy in allocation of resources, including procedures aimed at decent remuneration of teachers in achieving the final learning outcomes.

6.2 Material and technical base

Medical educational organisation/scientific organisation **must** have material and technical support corresponding to licensing indicators, which include the criteria of:

6.2.1 classrooms, laboratories and their equipment **must** be modern and adequate to the goals and objectives of the doctoral programme;

6.2.2 conditions for implementation of independent educational and research work of future doctoral students;

6.2.3 updating and improving the material and technical base **must** be carried out regularly.

6.2.4 Medical education organisation **must** have sufficient resources for proper implementation of the doctoral programme to ensure:

‒ admission of doctoral students,

‒ organisation of training in the doctoral programme,

‒ performing dissertation work,

‒ scientific advice for doctoral students,

‒ consideration, reviewing and evaluation of the thesis,

‒ operating costs,

‒ expenses for participation in training courses, in international scientific conferences,

‒ payment of tuition fees for doctoral studies in institutions where it is practiced,

‒ scholarships for doctoral students in the context of variation in the sise of scholarship.

6.2.5 Resource policy **must** be aimed at maintaining and ensuring the continuous professional growth of teachers in the doctoral programme.

6.2.6 Medical education organisation **must** have a support service for future doctoral students, including a receptionist office, research centers and laboratories, canteen, medical center, sports grounds and gyms.

6.2.7 Medical education organisation **must** provide a safe environment for employees, doctoral students, including those who ensure implementation of the programme, patients, if provided by the research, and those who care for them, including providing necessary information and protection from harmful substances, microorganisms, compliance with safety regulations in the laboratory and when using equipment.

6.2.8 Medical education organisation **should** determine processes aimed at improving learning environment of future doctoral students by regularly updating, expanding and strengthening the material and technical base, which **must** correspond to development in teaching practice.

6.3 Information Technology

6.3.1 Medical educational organisation/scientific organisation **must** have information support that corresponds to goals and objectives of the doctoral programme:

6.3.2 The library **must** contain materials necessary for training - educational, technical, scientific and reference literature, various periodicals, medical publications, etc.;

6.3.3 Medical education organisation **must** ensure that future doctoral students will have timely and free access to library resources.

6.3.4 The library **must** have basic technical equipment to support day-to-day operations: fax machines, copiers, computers, printers available for public use, and a telephone with voice mail or answering machine.

6.3.5 The library **must** have an information website. The website may contain following elements: links, interlibrary exchange forms, full-text electronic journal articles, and a feedback form.

6.3.6 Medical education organisation **must** regularly monitor library resources, study and implement strategies to meet the existing and future needs of doctoral students, including on the basis of applications from departments and faculties, and amount of funds allocated for purchase of educational, methodological, scientific literature.

6.3.7 Medical education organisation **must** guarantee that computer classes and terminals with access to information resources (local network, Internet) will be provided for the use of doctoral students.

6.3.8 Medical education institution must provide for a mechanism for monitoring availability and adequate use of information resources by future doctoral students.

6.3.9 Medical education organisation **must** constantly update, improve and expand the database of information resources, providing doctoral students with access to modern electronic databases, including foreign databases (Thomson Reuters (Web of Science, Thomson Reuters) Scopus, Pubmed, Elsevier, etc.).

6.3.10 Medical education organisation **must** open and constantly update on its website a section dedicated to doctoral programmes that will be opened in the new academic year, containing the following information:

- structure and staff of the doctoral department, duties of the department head and employees;
- admission policy, including clear rules on selection process for doctoral students;
- list of doctoral programmes;
- structure, duration and content of doctoral programmes;
- criteria for appointment of a scientific advisor, outlining characteristics, responsibilities and qualifications of the scientific advisor;
- methods used to assess doctoral students;
- description of work of the State Attestation Commission;
- criteria for design and writing of a thesis;
- description of the procedure for defending a dissertation work;
- description of activities of the Dissertation Council (position, composition), if any, in the absence of a Dissertation Council in the specialty at the university - standard rules for awarding academic degrees/model regulation on the Dissertation Council;
- programme for quality assurance and regular evaluation of the doctoral programme.

7. Standard "POLICY AND RECEPTION CRITERIA"

7.1 Medical education organisation **must** establish relationship between selection of doctoral students and mission of medical education organisation, educational programme and desired quality of graduates.

7.2 Medical education organisation/scientific organisation must define and implement an admission policy, including a clearly established provision on selection process for doctoral students.

7.3 Medical education organisation **must** have a system/mechanisms of career guidance aimed at selecting applicants for the chosen specialty of doctoral studies.

7.4 Medical education organisation **must** determine the structure responsible for

organising admission and selection of doctoral students, developed and approved rules/criteria for admission, based on the established model rules for admission to doctoral studies for higher educational institutions, distribution of information to the general public.

7.5 In selection of future doctoral students, research potential of the applicant **should** be assessed, but not simply taking into account his academic performance.

7.6 In the medical education organisation, there **must** be a system for studying employment, demand, career support and continuous professional development of future graduates.

7.7 Medical education organisation **should** ensure that the process of updating and restructuring leads to adaptation of the admission policy for doctoral students, taking into account changing expectations and circumstances, human resource needs, changes in the postgraduate education system and programme the needs.

8. Standard "DOCTORATE PROGRAMME"

8.1 Curriculum model, teaching methods and structure

8.1.1 Medical education organisation **must** ensure that the educational programme is developed on the basis of integrated, comprehensive, competence-based approach using modular training technologies. positively assessed by external experts/reviewers.

8.1.2 Medical education organisation **must** determine goal and objectives of the doctoral study programme, which are aimed at achieving the mission of the education organisation/educational programme and final learning outcomes

8.1.3 Medical education organisation **must** ensure that content of the educational programme meets requirements of the State Educational Standard and standard curriculum of the relevant specialty, and is developed taking into account the needs of labor market.

8.1.4 Medical education institution must ensure implementation of the educational programme with appropriate working curricula, academic calendar, curriculum for disciplines, forms of individual curriculum for future doctoral students and an individual work plan for doctoral students.

8.1.5 The doctoral programme **must** provide for performance of original research, which requires analytical and critical thinking, to be carried out under scientific supervision.

8.1.6 Medical education institution **must** ensure that the educational programme will be implemented in accordance with the principles of equality.

8.1.7 Medical education institution **must** provide for mechanisms to guarantee that future doctoral students fulfill their obligations to doctors, teachers, patients and their relatives in accordance with the Code of Conduct/Code of Honor.

8.1.8 The doctoral programme **must** ensure doctoral students are taught the rules of ethics and responsible research.

8.1.9 Medical education institution **must** determine teaching and learning methods that correspond to the educational programme and achievement of students competencies.

8.1.10 The doctoral programme **must** be structured with a clear time limit equivalent to 3 years full-time, and contain:
– theoretical training, including study of cycles of basic and major disciplines;
– practical training of doctoral students - various types of practices, scientific internships;

–   research work, including implementation of a doctoral dissertation for scientific and pedagogical doctoral studies;

–   experimental research work, including implementation of a doctoral dissertation for specialised doctoral studies;

–   intermediate and final attestations.

8.1.11 Medical education organisation **must** provide for mechanisms for implementation of pedagogical practice (in accordance with the type of doctoral studies) for formation of doctoral students' practical skills and teaching methods.

8.1.12 Medical education organisation **must** provide mechanisms for implementation of research practice to form doctoral students' knowledge, skills, competencies in the field of the latest theoretical, methodological and technological achievements of domestic and foreign science, modern methods of scientific research, processing and interpretation of experimental data.

8.1.13 Medical organisation **must** provide mechanisms for implementation of industrial practice (in accordance with the type of activity) for conducting doctoral students on the basis of theoretical knowledge of practical skills, competencies and experience of professional practice in the specialty being trained, as well as mastering advanced experience.

8.1.14 Medical education organisation **must** ensure that doctoral students will be provided with opportunity for additional training during vacation period in the presence of academic debt, desire to develop additional loans.

8.1.15 An appeal mechanism **must** be developed in the medical education organisation, allowing future doctoral students to review the decision regarding their achievements in educational programmes.

8.2 Evaluation of doctoral programme

8.2.1 Medical education institution **must** have a programme for monitoring processes and results, including routine collection of data on key aspects of the educational programme. The purpose of monitoring is to ensure quality of the educational process, to identify areas requiring intervention.

8.2.2 Medical education organisation **must** have approved mechanisms for implementation of a regular assessment of the programme quality, including feedback from scientific consultants, employers and doctoral students.

8.2.3 Medical education organisation **must** have mechanisms aimed at systematic collection, analysis of feedback and its provision to teachers and doctoral students, which will include information about the process and products of the educational programme, including unfair practice or inappropriate behavior of teachers or doctoral students.

Medical education organisation **should** ensure that the process of updating and restructuring the programme will be carried out regularly and aimed at:

8.2.4 adapting the curriculum model and teaching methodologies to ensure that they are appropriate and appropriate;

8.2.5 adjusting the programme elements and their relationship in accordance with advances in medical sciences, with changes in demographic situation and state of health/morbidity structure of population and socio-economic, cultural conditions.

8.3 Involvement of stakeholders

8.3.1 Medical education organisation **must** ensure that teaching staff, doctoral students, administrative and managerial personnel, and employers will be involved in the monitoring programme and activities in order to assess the educational programme.

8.3.2 Medical education organisation **should** ensure that other stakeholders will be involved in the assessment process, including representatives of academic and administrative staff, representatives of the public, authorised bodies for education and health, professional organisations, employers.

8.3.3 Medical education organisation **should** have mechanisms for providing access to the results of educational programme evaluation of all interested parties.

8.3.4 Medical education organisation **should** ensure that the process of updating and restructuring will lead to an improvement in the process of monitoring and evaluating the programme in accordance with changes in the final learning outcomes, and teaching and learning methods.

9. Standard "SCIENTIFIC GUIDANCE"

9.1 Medical education organisation **must** ensure that it will identify scientific consultants (domestic and foreign) for each doctoral student.

9.2 Medical education organisation **must** have mechanisms/procedures governing the process of discussion and approval of the candidacy of scientific advisor, and research topic of the doctoral student in accordance with standard requirements and the State Standard of Education.

9.3 Medical education organisation **must** ensure that candidates for scientific consultants will be selected from specialists with an academic degree and are actively involved in scientific research in the field of science in the specialty of doctoral student training.

9.4 Medical education organisation **must** have clearly defined duties and responsibilities of a scientific advisor.

9.5 Medical education organisation **should** plan and organise training courses for scientific consultants on the policy of implementing doctoral programmes, main responsibilities of scientific consultants.

9.6 Medical education institution **must** have procedures/mechanisms/structures that organise, control scientific activities of future doctoral students to carry out dissertation research.

9.7 Medical education organisation **must** determine, approve and publish principles, methods and practices that will be used to evaluate doctoral students, including criteria for evaluating scientific work.

10. Standard "GOVERNANCE AND ADMINISTRATION"

10.1 Programme management

10.1.1 Management of the medical educational organisation **must** be effective and ensure improvement of the educational programme.

10.1.2 Medical education organisation **must** ensure that doctoral studies are carried out only on a full-time basis.

10.1.3 Medical education organisation **must** determine the structural unit

responsible for educational programmes and achievement of final learning outcomes.

10.1.4 The structural unit responsible for educational programmes **must** have authority to plan and implement the educational programme including allocation of allocated resources for planning and implementing teaching and learning methods, assessing doctoral students, evaluating the educational programme and training courses.

10.1.5 Medical education organisation **must** guarantee interaction of future doctoral students with the management on design, administration and evaluation of doctoral programmes.

10.1.6 Medical education organisation **should** encourage and facilitate involvement of future doctoral students in development of educational programmes for training of doctoral students. Appropriate procedures need to be provided for that.

10.1.7 The structural unit responsible for educational programmes **must** ensure transparency of management system and decisions made that are published in bulletins, posted on the university website, included in MoMs for review and execution.

10.1.8 Medical education organisation **should** have a structural unit responsible for educational programmes, planning and implementing innovations in the educational programme.

10.1.9 Medical education organisation **should** include representatives from other relevant stakeholders in the advisory body responsible for educational programmes including other participants in the educational process, representatives from clinical bases, graduates of medical educational institutions, healthcare/pharmacy specialists involved in the training process or other teachers of the university faculties.

Medical education organisation **should** ensure that the structural unit responsible for the educational programme:

10.1.10 takes into account peculiarities of the conditions in which graduates will have to work and accordingly modify the educational programme.

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

10.1.12 Medical education organisation **should** ensure that the process of renewal and restructuring leads to improvement in the organisational structure and principles of management of the doctoral programme in order to ensure effective operation and (in the future) to meet interests of various groups of stakeholders in the context of changing circumstances and needs.

10.2 Academic leadership

10.2.1 Medical education organisation **must** clearly define responsibility of the academic management in relation to development and management of the educational programme.

10.2.2 Medical education organisation **should** periodically assess academic leadership regarding achievement of its mission and final learning outcomes.

10.3 Training budget and resource allocation

Medical education organisation **must**:

10.3.1 have clear terms of reference and authority to provide the educational programme with resources, including a target budget for training;

10.3.2 plan and allocate resources necessary for implementation of the educational programme, and allocate educational resources in accordance with their needs.

10.3.3 The system of financing a medical education institution **must** be based on the principles of efficiency, effectiveness, priority, transparency, responsibility, delineation and independence of all levels of budgets.

10.3.4 Financial and administrative policies **must** be aimed at improving quality of the educational programme.

Medical education organisation **should:**

10.3.4 provide sufficient autonomy in allocation of resources, including decent remuneration of teachers in order to achieve final learning outcomes;

10.3.5 take into account scientific advances in medicine and public health problems and their needs when allocating resources.

10.4 Administrative staff and management

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

10.4.1 ensure implementation of the educational programme and related activities.

10.4.2 ensure that resources are properly managed and allocated.

10.4.3 Medical education organisation **should** develop and implement an internal programme for quality assurance of management, including consideration of needs for improvement, and conduct a regular review and analysis of management.

10.4.4 Medical education organisation **must** ensure implementation of the doctoral programme in accordance with the quality management system certified by independent organisations.

10.5 Interaction with the health sector

10.5.1 Medical education organisation **must** have constructive interaction with the health sector, with related health sectors, society and government, including exchange of information, cooperation and initiatives of the organisation, that contributes to provision of qualified specialists in accordance with the needs of society.

10.5.2 Medical education organisation **must** provide an operational link between the educational programme and subsequent stages of professional training

10.5.3 Medical education organisation **should** be given a formal status of cooperation with partners in the health sector, which includes conclusion of formal agreements defining the content and forms of cooperation and/or conclusion of a joint contract and creation of a coordinating committee, and holding joint events.

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