



REPORT

ON EXTERNAL REVIEW

of the educational programmes

«Pharmacy» (33.05.01),
«Industrial Pharmacy» (33.04.01)

delivered by I.M. Sechenov First Moscow State
Medical University of the Ministry of Healthcare of
the Russian Federation

Moscow, 2020

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Chair of the Review Panel   Zhang Xuemei

Moscow, 2020

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INTRODUCTION

External review of the educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01) delivered by I.M. Sechenov First Moscow State Medical University of the Ministry of Healthcare of the Russian Federation was conducted on October 13-15, 2020 and included the analysis of the self-evaluation report (57 pages and 19 annexes), online meetings with the University administration, students, Heads of Departments, teaching staff, employers and preparation of the present report. The University on the whole, Neliubin Institute of Pharmacy (Galina Ramenskaia, Director) and Departments have well prepared documents for accreditation of the educational programmes.

During the meetings with students, teachers, Heads of Departments, graduates, employers, Institute Director and Rector's Office of the University the External Review Panel listened to the comments and proposals on the improvement of training quality.

The main goal of the external review is to determine the correspondence of the reviewed educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01) delivered by I.M. Sechenov First Moscow State Medical University of the Ministry of Healthcare of the Russian Federation to standards and criteria of public accreditation, which are developed by the National Centre for Public Accreditation (hereinafter - NCPA) together with the Higher Education Evaluation Centre of the Ministry of Education of the People's Republic of China (hereinafter - HEEC) in compliance with the European Standards of Quality Assurance in Education ESG-ENQA.

The Final Report is the basis for decision of the National Accreditation Board and HEEC Accreditation Board on public accreditation of the educational programmes in compliance with standards and criteria of NCPA and HEEC.

1. CONTEXT AND MAIN STAGES OF THE REVIEW

1.1 Terms of Reference

According to item 1, 3 article 96 of the Federal Law of the Russian Federation of December 29, 2012 No.273-FZ "On education in the Russian Federation" organizations, which implement educational activities, may apply for public accreditation in various national, foreign and international institutions. Employers, employer associations and designated organizations have the right to conduct public accreditation of professional educational programmes, which are delivered by an educational institution.

In order to conduct international public accreditation of the educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01) Sechenov University applied to NCPA, which operates on the national level and is recognized by leading international organizations of quality assurance in higher education.

1.2 Composition of the Review Panel

The international experts were nominated by the Higher Education Evaluation Centre of the Ministry of Education of the People's Republic of China upon NCPA's request.

The Russian expert was nominated by the Guild of Experts in Higher Education.

The employer representative was nominated by «Pharmstandard».

The representative of the students' community was suggested by People's Friendship University of Russia.

The composition of the External Review Panel was approved by NCPA.

The Review Panel included six international and national experts:

- **Zhang Xuemei** - PhD, Professor, School of Pharmacy, Deputy Dean of Teaching, Fudan University, Deputy Secretary-General of the Teaching Committee of International Students (Medical) of the Chinese Pharmacological Society, Director of the Shanghai Pharmacological Society — Review Chair, foreign expert;
- **Natalia Durnova** - PhD in Biology, Associate Professor, Dean of the Pharmaceutical Faculty, Head of the Department of General Biology, Pharmacology and Botanic, Saratov State Medical University named after V. I. Razumovsky — Deputy Review Chair, Russian expert;
- **Sun Jianping** - PhD, Professor, Party Secretary of School of Pharmacy, Harbin Medical University — Panel member, foreign expert;
- **Anna Rodovnichenko** - Head of the Department for Methodological and Information Support "Pharmstandard" — Panel member, representative of professional community;
- **Anna Abramova** - 4th year student of the Medical Institute, Peoples' Friendship University of Russia – Panel member, representative of students.

The focused expert knowledge of the Panel members, long-term experience of working in the system of higher education and profession, active position of students and employers became the basis for effective consideration of issues within the framework of evaluation.

The participation of the Russian representatives of the higher education system gave an opportunity to analyze the activity of the programmes under evaluation in the context of the world trends in quality assurance and within the scope of the national educational system.

1.3 Purposes and objectives of the review

The purpose of public accreditation is improving quality of education and forming quality culture in educational institutions, discovering best practices in continuous enhancing the educational quality and public information on educational institutions in accordance with the European educational quality standards.

The main goal of the peer review is to determine the correspondence of the reviewed educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01) delivered by Sechenov University to

standards and criteria of public accreditation, which are developed by NCPA together with HEEC in compliance with the European Standards of Quality Assurance in Education ESG-ENQA; and to develop recommendations for the study programme with the purpose of improving the content and structure of the educational process.

1.4 Stages of the review

The review included three main stages:

1.4.1 Study of the self-evaluation report

I.M. Sechenov First Moscow State Medical University of the Ministry of Healthcare of the Russian Federation was responsible for conducting the self-evaluation procedure, developing and timely submitting of the self-evaluation report to NCPA.

According to the "Guidelines on Self-evaluation of Educational Programmes", which were developed by NCPA, the self-evaluation report is written on 57 pages and includes: introduction, findings, conclusions, 19 annexes. The self-evaluation procedure was conducted on the basis of SWOT-analysis according to every standard of NCPA.

According to the review schedule, the self-evaluation report of the educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01) was submitted to NCPA and mailed to the members of the review panel 30 days before the site-visit.

While studying the self-evaluation report the Panel members formed a preliminary opinion about the reviewed educational programmes on compliance with the standards of NCPA and HEEC and criteria on accreditation and with the European standards of education quality.

The members of the Review Panel assessed the quality of preparation of the self-evaluation report with regards to its text structuring, compliance of information with the report's sections; quality of perception; sufficiency of analytical data; availability of references to supporting documents; completeness of information, which helped to make a preliminary expert opinion.

The review panel members pointed out some weaknesses of the self-evaluation report:

1. It is recommended that conclusions on standard 2 should be made more specific: what incentives can motivate employers to work with junior students, and what facilities for work placement (including research) will be further used in the educational process.

2. Conclusions on standard 7 fully and in detail describe advantages of the system of collection and use of information at the University, however, there are no areas that require improvement.

The following issues should be given a special analysis during the site visit:

1. More full information on the quality management system is required (the website presents incomplete information on the structure and activities of this subdivision).

2. The peculiarities of organization and delivery of training following individual learning paths.

It is necessary to get additional information on the educational programmes under accreditation:

1. What are the training goals of the programmes «Registration of Foreign-Made Medicines, Cosmetics and Biologically Active Supplements in the Russian Federation» and «Peculiarities of Registration of Pharmaceutical Products in the Russian Federation, EAEU and EU»? What is an organization of training on these programmes?

2. What documents were made when Schools of Excellence were introduced in the educational process and how their efficiency is evaluated?

3. How the teaching staff, conditions and attestation of the teaching staff are comprehensively assessed?

According to the standards and criteria of accreditation of NCPA and HEEC the preliminary assessment of the educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01) may be defined as "full compliance".

1.4.2 Site visit

The Review Panel held online meetings at Sechenov University on October 13-15, 2020 with the purpose of confirming the accuracy of the information, which was presented in the self-evaluation report, collecting extra information on the implementation of the accredited programme and checking its compliance with the standards and criteria of NCPA and HEEC developed in accordance with the European standards of education quality assurance.

The time line and the agenda of the site-visit were determined by NCPA together with HEEC and approved by the administration of Sechenov University and the members of the Review Panel.

During the site-visit the Review Panel members conducted a number of meetings and interviews with:

1. The University administration, people responsible for accreditation.
2. Institute Directors and their Deputies.
3. Heads of Departments.
4. Graduates.
5. Teachers.
6. Students.
8. Employers.

The Chair of the Review Panel managed the Panel's work.

The Panel considers that the self-evaluation report which was presented by Sechenov University provided the experts with an opportunity to form an integral view on specific features of delivery of the reviewed educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01).

The studied documents and the interviewed persons, video materials about the Simulation Centre, University library and laboratories provided the Review Panel members with sufficient information about reviewed educational programmes.

The Review Panel considers it necessary to highlight the effective cooperation of the experts, NCPA and HEEC employees during the online site-visit and its preparation.

The Review Panel notes the highest level of organizational provision and constructive work.

The executive staff of Sechenov University provided the administrative support, which included arrangement of meetings and interviews, provision with necessary research, academic and methodological documents, information about classrooms and laboratories of the Institute of Pharmacy and Master Programmes Centre.

The Review Panel members requested additional documents during the online site-visit to Sechenov University.

On the last day of the site-visit the Chair of the Review Panel presented an oral report on the general conclusions to the executive staff of the University, Director of the Institute of Pharmacy, and Heads of Departments.

The agenda of the site-visit can be found in the Annex A.

1.4.3 Conclusion on the findings of the external review

Based on the results of the external review of Sechenov University the Review Panel submitted the Report on the results of the external review of the educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01) delivered by the educational institution.

The draft report of 25 pages excluding Annexes was developed by the Chair of the Review Panel, approved by the other Review panel members and submitted to the National Centre for Public Accreditation. Then the Report is mailed to the University's administration for making factual amendments.

2. DESCRIPTION OF THE STUDY PROGRAMMES

Federal State Autonomous Educational Institution of Higher Education I.M. Sechenov First Moscow State Medical University of the Ministry of Healthcare of the Russian Federation (Sechenov University) is the first, oldest and largest Russian medical educational and research institution aimed at training, attestation and postgraduate education of doctors and pharmaceutical chemists/pharmacists, and contributing to further development of medical science and healthcare and modernization of Russian medical and pharmaceutical education.

Neliubin Institute of Pharmacy (hereinafter – Institute of Pharmacy) is one of the University subdivisions. About 1600 students study at the Institute.

The Institute of Pharmacy was established in 1936 and was called Moscow Pharmaceutical Institute. In 1958 the Pharmaceutical Institute became part of Sechenov University as a Pharmaceutical Faculty. Then, in 2016 the Pharmaceutical Faculty was transformed into the Institute of Pharmacy and Translational Medicine as part of I.M. Sechenov First Moscow State Medical University. In 2018 the Institute of Pharmacy and Translational Medicine was divided into two separate institutes: Institute of Pharmacy and Institute of Translational Medicine and Biotechnology. In 2019 the Institute of Pharmacy was named after Aleksandr Neliubin – one of the founders of national pharmacy, Russian Doctor of Medicine, Professor of the Imperial Medical Surgical Academy.

Historically, the Institute of Pharmacy is one of the largest and main leaders in training of pharmaceutical chemists – specialists for the pharmaceutical industry.

According to the ranking agencies, graduates of Sechenov University in the field of study “Pharmacy” have been leaders over a period of several years.

Director of the Institute of Pharmacy is Galina Ramenskaia, Professor, Doctor of Pharmaceutics.

The educational programme under review 33.05.01 Pharmacy is delivered in compliance with the requirements of the Federal State Educational Standard <http://fgosvo.ru/330501>. A graduate learning the programme gets a profession in Pharmacy. A qualification that a graduate requires is a Pharmaceutical Chemist.

The teaching staff uses an interdisciplinary module approach in training that includes online education and education in a foreign language.

The Institute of Pharmacy comprises 8 Departments:

- Department of Analytical, Physical and Colloid Chemistry;
- Department of Chemistry;
- Department of Pharmaceutical Organization and Economics;
- Department of Pharmacology;
- Department of Pharmaceutical Science;
- Arzamastcev Department of Pharmaceutical and Toxicological Chemistry;
- Department of Pharmaceutical Technology;
- Department of Pharmacy.

The Master Programmes Centre («Industrial Pharmacy» 33.04.01) was established in 2013 in order to train a new generation of leaders capable of providing sustainable management of the healthcare system in the context of

modernization of the industry. There are high demands in the country for experts with an in-depth training in fundamental and applied disciplines in the legal system in the sphere of people's health protection, public healthcare, organization, healthcare management, economics and sociology, psychology of management.

The educational programme «Industrial Pharmacy» 33.04.01 is aimed at training of Master students capable of organizing processes of the pharmaceutical quality system of medicines production; controlling compliance with the requirements to production and quality control of pharmaceutical products in the workplace; organizing work of the staff in quality assurance of pharmaceutical products; organizing, planning and improving the pharmaceutical system of quality production of medicines. The educational programme is delivered by Doctors and Candidates of Sciences, members of the Russian Academy of Sciences, leading experts in industrial pharmacy.

3. FINDINGS

3.1 Standard 1. Policy (goals, development strategy) and quality assurance procedures of the study programmes

Compliance with the standard: full compliance

Table 1 - Criteria to Standard 1

Nº	Subject of Evaluation	Mark
1.	Availability of a documented inner quality assurance system providing continuous enhancement of quality in accordance with the developmental strategy of the educational institution	A
2.	Participation of all stakeholders (administration, teaching staff, students, employers, employer associations, branch ministries and departments – key partners in employment of graduates) in developing and implementing a quality assurance policy through relevant structures and processes	A
3.	Participation of all structural units of an educational institution in quality assurance processes and procedures	A

Analysis of the educational programmes' compliance with the standard:

High quality of the educational programmes under review is determined by active involvement of the management and all subdivisions of Sechenov University in continuous work on the development, improvement and renewal of the programmes in compliance with modern development tendencies of education, science and industry. A comprehensive approach to quality assurance of the educational programmes was also shown during the interviews.

The management of Sechenov University and the Institute of Pharmacy are involved in all aspects of the HEI's life, which was also approved during the meetings, when interviewees gave full and complete answers to all the questions.

Achievements:

- 1) A well established University management contributes to the fulfillment of innovative development strategies and quality assurance of the educational process.
- 2) A well established quality management system is in place: the internal quality assurance system is documented; all stakeholders are involved in improvement of the quality assurance policy of the educational process.
- 3) On the one side, all procedures of the internal quality assurance system are comprehensively documented; on the other side, there is a high level of digitization of all processes of cooperation between a student and the HEI in training and solution of organizational and personal issues.

Recommendations:

- 1) All stakeholders should be more involved in the development of the educational programmes; a mechanism of employers' involvement should be improved concerning adjustment of not only further education programmes (workshops, etc.) but the main educational programme. It will contribute to faster and better improvement of the educational programme in compliance with the changing requirements of the market.

- 2) The defense of graduation works plays an important role in the quality assurance system, so the procedure of graduation works' defense should be made available and more comprehensive for Master students of the programme «Industrial Pharmacy».
- 3) Cooperation between employers and the Institute should be enhanced concerning the issues of defining market requirements and areas for improvement of the educational programmes.

3.2 Standard 2. Design and approval of programmes

*Compliance with the standard: **full compliance***

Table 2 - Criteria to Standard 2

№	Subject of Evaluation	Mark
1.	Availability and accessibility of clearly defined, documented, approved and published goals and objectives of a study programme and expected learning outcomes and their correspondence to the mission and goals and objectives of the educational institution	A
2.	Availability of procedures for design, approval and revision of a study programme (including expected learning outcomes) with the account of the development of science and industry, and also with the consideration of stakeholder opinions (administration, teaching staff, students, employers)	A
3.	Consideration of the requirements of professional standards (if available), of labour market, of national qualification framework descriptors in the study programme	A

Analysis of the educational programmes' compliance with the standard:

The goals of the educational programmes comply with the University mission; the educational programmes are regularly updated; the curricula are also regularly adjusted (especially concerning the variable elements); new disciplines are introduced in accordance with the demands of the pharmaceutical industry. The staff of the Institute of Pharmacy made the educational programme «Pharmacy» on the basis of the Federal State Educational Standard, which became an example for the design of educational programmes in other Russian HEIs.

The design of the educational programme «Industrial Pharmacy» and its methodological support certainly contributed to the development and improvement of professional education aiming at training of highly-qualified experts for the pharmaceutical industry.

The meeting with employers showed that the students should be more trained in practical skills and they should receive up-to-date information for adaptation in the real life.

During another meeting Master students noted that remote learning is convenient, that is why remote technologies should be further improved.

Employers noted that some graduates are lacking skills in using computer programmes (Excel, Power Point, etc.), that is why training in these skills should be enhanced.

Achievements:

- 1) The information on expected learning outcomes and their correspondence to the mission, goals and objectives of the educational institution is available. Stakeholders' opinions and requirements of professional standards are taken into account when reviewing the educational programmes.
- 2) The educational programmes are regularly improved with the account of modern achievements of science and technology.
- 3) The development and delivery of the educational programme «Industrial Pharmacy» is an important step in the development of pharmaceutical education in the country. Currently, experts in this field are in high demand on Russian and international markets.

Recommendations:

- 1) Facilities for work placement and for research work should be extended in order to improve practical skills of students.
- 2) An optimum number of foreign students in an academic group should be established in order to guarantee high quality of education.
- 3) Applicants entering Master studies should also include working specialists willing to improve their professional knowledge; the work on improvement of remote technologies in Master students' training should be improved.
- 4) Training of students in skills of working with computer programmes should be enhanced.

3.3 Standard 3. Student-centered learning, teaching and assessment

Compliance with the standard: **full compliance**

Table 3 - Criteria to Standard 3

Nº	Subject of Evaluation	Mark
1.	Consideration of needs of diverse groups of students and a possibility to create individual learning paths	A
2.	Use of methods encouraging students to take an active part in creating the learning process	A
3.	Use of clearly defined criteria and objective assessment procedures of learning outcomes/ competences of students corresponding to the expected learning outcomes, goals of the study programme and their purpose (diagnostic, formative or summative assessment)	A
4.	Information about the study programme, criteria and procedures for assessment of learning outcomes/competencies, about examinations, tests and other types of control.	A
5.	Use of procedures of independent assessment of learning outcomes	A
6.	Availability and effectiveness of appeals procedure and procedures for dealing with students complaints	A

Analysis of the educational programmes' compliance with the standard:

An achievement of the whole staff of Sechenov University is a developed and continuously improving unified electronic educational environment. As a result of it, the students have an opportunity to choose an individual learning path.

Face-to-face training of the students of the Pharmacy programme, that includes work in classrooms and independent work of students, is supplemented by active use of electronic educational resources. Various methods are used in training – video lectures, discussions, business games, role games, case-study, and seminars with the use of information and communication technologies.

Achievements:

- 1) A unified electronic educational environment provides students with necessary information on the course and content of the educational process and helps to quickly solve emerging issues.
- 2) The students have great opportunities to choose an individual learning path; for example, this opportunity helps to increase education diversification and focus on the chosen area of work.
- 3) There is a Centre for Research Career for talented students willing to build a career in research. Four main areas of activities are represented: educational, research, awareness-raising and international.
- 4) The Departments hold workshops, which help to diversify the educational process and motivate students to get deeper knowledge in certain areas.
- 5) Due to digitization of process the students get necessary knowledge in an easier and more interesting way. Presentation of the information in English makes training easier for foreign students.
- 6) A personal account of the students provides timely feedback from the students on the results of learning the educational programme.
- 7) Publication activities of the students are high; their involvement in research gave an opportunity to gain very high results – 61 articles in the top-rated international journals in 2019.

Recommendations:

- 1) The University should motivate students to participate in different procedures of external review of training quality (olympiads, competitions, etc.).
- 2) Students should be more involved in research beginning from the 2nd year of study.
- 3) Practical training should be enhanced; internship programmes should be extended.
- 4) When designing timetables of the educational process, opinions of students should be taken into account for work placement and professional internships of junior students.
- 5) The number of places for recreation and communication of students should be increased.

3.4 Standard 4. Student admission, support of academic achievements and graduation

Compliance with the standard: **full compliance**

Table 4 - Criteria to Standard 4

Nº	Subject of Evaluation	Mark
1.	Systematic career guidance work targeted at the recruiting and selection of applicants should be in place	A
2.	Availability and effectiveness of rules and regulations for admission, transfer of students from other educational institutions, recognition of qualifications, periods of study and prior learning	A
3.	Systematic work to support students' progression	A
4.	Recognition of higher education qualifications obtained in the RF and abroad (Diploma Supplement)	B
5.	Participation of students in mobility programmes	A

Analysis of the educational programmes' compliance with the standard:

Career guidance is one of the strategic priorities and strengths of the University.

The Centre of International Education, Faculty of Preparatory Training, Resource Centre "Medical Sechenov Pre-University" successfully work at the University as part of the project «A School - a HEI». Training at the Medical Sechenov Pre-University is a convenient way to prepare for application at the educational institution.

The Institute of Pharmacy carries out career guidance in Pharmaceutics and holds Open Doors Days for applicants. The teachers of the Institute deliver lectures at «University Saturdays» helping school leavers to choose the programme.

On the basis of the Departments at the Institute of Pharmacy school students carry out interesting research projects related to Pharmaceutics under the guidance of experienced teachers of the Departments.

Work on adaptation of foreign students is regularly carried out: preparatory programmes and courses of Russian as a foreign language are delivered. The students have an opportunity to learn the programme «Translator in the Sphere of Professional Communication». The Institute of Pharmacy is planning to extend cooperation with 20 foreign universities and research centers from China, France, Germany, etc.

Students from the Republic of Kazakhstan, Belarus Republic, Republic of Azerbaijan, Republic of Uzbekistan, Republic of Iraq, and Syrian Arab Republic are learning the programme Industrial Pharmacy (33.04.01).

The Review Panel noted that the Institute should continue extending international cooperation for the more intensive development of students' academic mobility and joint research projects.

Achievements:

- 1) The career guidance system is well established and is oriented at an applicant, which helps to make an individual learning path for a future professional.

- 2) The University information environment provides full and available information on fields of study, educational programmes, admission; the website is colourful and branded; there are many extracurricular activities at the University.
- 3) Students' academic mobility is carried out in different areas in cooperation with many large HEIs in different countries.

Recommendations:

- 1) Availability of preparatory training for foreign school leavers and nonresidents should be enhanced.
- 2) The opportunities for students to serve internships abroad should be extended.
- 3) The number of foreign partners for recognition of degrees should be increased.
- 4) Language proficiency of students should be continuously improved in order to carry out projects of international cooperation.

3.5 Standard 5. Teaching staff

Compliance with the standard: **full compliance**

Table 5 - Criteria to Standard 5

Nº	Subject of Evaluation	Mark
1.	Qualification and competence of the teaching staff : <ul style="list-style-type: none"> – Academic degrees and titles; – Industry and state awards and prizes; – Practical experience; – Published text books, handbooks and methodological guidebooks 	A
2.	Relevance of specialists, degrees and titles and /or practical experience to the profile of the study programme	A
3.	Research activity of the teaching staff, implementation of research results in the academic process	A
4.	Use of innovative teaching methods and advanced technologies	A
5.	Visiting lecturers from other educational institutions including those from abroad	A
6.	Participation of the teachers in joint international projects, internships abroad, academic mobility programmes	A
7.	A system of financial and non-financial incentives for teachers	A
8.	Availability and use of clear, transparent and objective criteria for: <ul style="list-style-type: none"> – Hiring staff including teachers from foreign educational institutions, assignment to positions, promotion, dismissal; – Dismissal of teachers with low level of professional competency 	A
9.	A system for career development and professional advancement for teachers	A

Analysis of the educational programmes' compliance with the standard:

The teachers are highly qualified, and it is a very important achievement of the University and an indicator of education quality assurance. The teachers also do research.

Teachers' research work is supported by the management through various incentives – financial support, access to modern and expensive equipment and laboratories, support in organizing internships abroad and learning foreign languages.

Comprehensive support of young teachers is also one of the University strengths; more experienced teachers support the young ones; internships are served abroad, which helps to improve the level of teaching.

Achievements:

- 1) The incentives system for the teachers is developed and is successfully carried out; the ranking scores of teachers correlate with the key indicators of their performance.
- 2) The requirements for hiring teachers are high; they have to be published in the top-rated professional journals and have grants; when applying for the job, teachers' experience and performance are assessed.
- 3) The research work of teachers is on a high level, which is approved by the ranking of their publications in leading research journals over the last years.
- 4) Innovative teaching methods are developed; simulation classes are introduced in the educational process.

Recommendations:

- 1) The Institute of Pharmacy should develop a mechanism for regular participation of foreign teachers in the educational process.
- 2) New educational technologies should be continuously used, including the digital ones, thus providing a multifaceted approach and diversification of teaching methods.
- 3) When delivering the educational programme «Industrial Pharmacy», more foreign lecturers and University subdivisions (Departments, laboratories) should be involved in order to provide the best compliance with the disciplines/practices.
- 4) The electronic educational resources should be complemented and improved, in particular, more lectures should be made in a digital format.
- 5) Young teachers should be more motivated to gain and improve competences and receive academic degrees.

3.6 Standard 6. Learning resources and student support

*Compliance with the standard: **full compliance***

Table 6 - Criteria to Standard 6

№	Subject of Evaluation	Mark
1.	Provision of the study programme with material and technical recourses in accordance with the requirements of the curriculum (modern tools, equipment, computers, classrooms, laboratories)	A
2.	Availability of up-to-date library and information resources including those for independent study and research work	A
3.	Availability of infrastructure to ensure access to quality education to students with different opportunities and of different age, and to provide the development of social and educational component of the academic process	A

4.	The system of feedback on the satisfaction with conditions and organization of the study process should be in place	A
5.	Availability of accessible information about opportunities for student mobility and its support system	A

Analysis of the educational programmes' compliance with the standard:

Material and technical resources of the University are the basis for the quality and practice-oriented training. An access for students to University laboratories and a possibility to do research starting from the first years of study are a great motivating factor for the students, who highly evaluated training conditions at the University during the interview.

A key element in the system of educational processes management is a Multifunctional Centre of Sechenov University, which is integrated with other University services.

Achievements:

- 1) Establishment of the Multifunctional Centre at Sechenov University helped to structure and maximally automate all processes of information, consulting and document flow.
- 2) A national platform of electronic medical education Sechenov.pro is developed at the University; educational courses are published on the international online resources Coursera, Stepik, Universarium, etc.; currently, 110 various courses are published in different Internet resources.
- 3) The system «University – Student» helps to manage the educational process: online timetable, including notifications about changes, monitoring of academic failure, independent choice of elective disciplines, order of documents with their tracking, etc.
- 4) The students are actively involved in research since first years of study, and by graduation many students clearly understand the area of their future work; some students receive job offers following the results of successful internships and work placement.

Recommendations:

- 1) Digital systems providing better learning of practical skills should be developed.
- 2) The University should pay more attention to the development of programmes of the Simulation Centre for Pharmacy students; the number of simulation classrooms and laboratories for the students should be increased.
- 3) The students should have more access to expensive equipment for better analysis when they do research.

3.7 Standard 7. Collection, analysis and use of information for managing the study programme

*Compliance with the standard: **full compliance***

Table 7 - Criteria to Standard 7

Nº	Subject of Evaluation	Mark
1.	Availability and effectiveness of the system for collecting and monitoring information about the study programme	A
2.	Participation of students and staff of the educational institution in collecting and analyzing information for managing the study programme	A
3.	The educational institution should have in place a unified effective information system on the basis of modern information technologies for managing the study programme	A

Analysis of the educational programmes' compliance with the standard:

A unified digital environment established at the University is unique in Russia, and it is certainly important that the educational institution is planning to allow other HEIs to use it. The system for collection and monitoring of information is multi-faceted and takes into account opinions of all stakeholders.

Achievements:

- 1) The unified environment of digital services is developed and includes: digital educational technologies, individual learning paths, competences, digital economy.
- 2) The multifunctional Centre provides students with a possibility to receive all necessary educational materials and to cooperate with the HEI in any issues.
- 3) There is an online laboratory at the University for a remote access to practical laboratory skills, which is very important in the context of the pandemics today and in the future, for example, when working with dangerous chemicals.

Recommendations:

- 1) Digital competences of all participants of the educational process should be continuously improved.
- 2) The students should be more involved in the development of the educational programme.
- 3) The University should present information on various student events; different languages should be used for information (for example, Chinese).

3.8 Standard 8. Public information

*Compliance with the standard: **substantial compliance***

Table 8 - Criteria to Standard 8

№	Subject of Evaluation	Mark
1.	Effective use of the official website of the study programme for its quality enhancement	A
2.	Publication of complete and accurate information on the study programme and its achievements on the official website of the educational institution and mass media	A
3.	Publication of objective data on the employability of graduates	B
4.	Integration in the environment, interaction of the educational institution with different professional associations and other organization including those from abroad	A

Analysis of the educational programmes' compliance with the standard:

The official website of Sechenov University is the main source of information about the educational institution; the information is regularly updated.

The University cooperates with professional associations; the information on joint programmes is presented on media platforms.

Huge work was done concerning the design of the programmes of professional development for teachers from other HEIs («The content of the discipline according to a new Federal State Educational Standard of Higher Education in the field of study 33.05.01 Pharmacy»), which is an important indicator for this standard.

The Review Panel noted convenience and representation of information on the website in Russian, but the Panel members consider it necessary to improve the website in English and to add information in certain sections, which is driven by a rapid increase in the number of foreign students.

The information on employability, demand for graduates and their achievements is presented in the self-evaluation report, however, it is not completely published on the website.

Achievements:

- 1) The University website has a branded interface; it is informative, interesting and convenient. The information system «University-Student», which was shown during the meeting with the HEI administration, is impressive.
- 2) The Institute of Pharmacy closely cooperates with pharmaceutical and medical organizations (National Pharmaceutical Chamber, Russian Association of Pharmacy Networks, Association of Russian Pharmaceutical Manufacturers); specialists from these organizations and leading HR experts hold free seminars for the graduates.
- 3) The public organizations of Sechenov University have a great impact on the educational institution and support its development in all areas of activity.

Recommendations:

- 1) A more complete version of the website in English should be developed in order to provide access to the information on the educational programmes.
- 2) New version of the website should be developed, including the website in Chinese.
- 3) More complete information on employability and demand for the graduates should be published on the website.
- 4) Ways of cooperation with professional organizations should be extended in order to improve the educational programmes.

3.9 Standard 9. On-going monitoring and periodic review of programmes

*Compliance with the standard: **full compliance***

Table 9 - Criteria to Standard 9

Nº	Subject of Evaluation	Mark
1.	Documented procedures of monitoring and periodic review of study programmes should be in place	A
2.	Availability of a feedback mechanism for students, employers, branch ministries and departments (key stakeholders in employment) in the process of monitoring and periodic review of a study programme	A
3.	Effectiveness of procedures for monitoring and periodic review of a study programme (enhancement of programmes)	A

Analysis of the educational programmes' compliance with the standard:

The management of the educational programme "Pharmacy" is carried out by the Academic Council of the University, Central Methodological Council, Academic and Methodological Council of the Institute of Pharmacy, which approve working programmes of disciplines, make decisions on the structure of the educational programme and curriculum, introduce new disciplines in compliance with the modern tendencies in the development of healthcare and pharmacy.

A comprehensive approach to evaluation of the educational programme, which was described in the self-evaluation report, helps to highly assess compliance with this standard. An effective feedback system from the teachers and students is used at the University; the monitoring system provides objective data on the dynamics of educational processes.

The meetings with employers and graduates showed that the University actively cooperates with key partners concerning graduates' employability.

According to many graduates and employers, it is necessary to improve training in practical skills and use more case studies in the educational process.

Achievements:

- 1) An effective mechanism of feedback from the teachers and students is used at the University.
- 2) The monitoring of the educational programme' performance is carried out; the quality of educational, research, innovative and medical activities is annually carried out with the help of stakeholders' survey.

- 3) The Association of Graduates actively cooperates with the educational institution.
- 4) The graduates achieved high results in professional accreditation (100%).

Recommendations:

- 1) The University should get more feedback from employers on the quality of education.
- 2) Employers should be more involved in the development of the educational programmes concerning not only elective elements and additional courses but analysis and review of the programme in whole.
- 3) Training in practical skills should be improved; more case studies should be used in the educational process.

3.10 Standard 10. Cyclical external quality assurance of study programmes

Compliance with the standard: **full compliance**

Table 10 - Criteria to Standard 10

№	Subject of Evaluation	Mark
1.	Periodic review of a study programme	A
2.	Availability of a corrective actions programme to follow up the results of external evaluation of study programmes	A
3.	Consideration of the results of previous procedures of external evaluation when conducting subsequent external procedures	A

Analysis of the educational programmes' compliance with the standard:

The University showed high level of preparedness for the review. External review is carried out regularly; the management highly appreciates and promotes involvement of external experts in order to receive recommendations. The University regularly makes progress reports in public, and the results of external reviews for an annual period are taken into account when making plans for the next year. The Department of Quality Management regularly summarizes and structures data on the delivery of educational programmes and students' achievements and defines growth prospects.

Achievements:

- 1) The University carries out project management, which provides regular performance monitoring.
- 2) The University was accredited by the German accreditation agency «evalag».
- 3) Many students are winners of international Olympiads, championships and competitions such as WorldSkills, national olympiad «I am a Professional», which is an indicative of a high level of professional competences.
- 4) High scores for an annual state final academic assessment are received (an average score in the field of study "Pharmacy" is 4,5); the assessment is carried out with the participation of employers (not less than 50% of the Commission).

Recommendations:

- 1) External review of the educational programmes should be carried out more for an objective analysis of their content and further improvement of the training quality.
- 2) Additional mechanisms of international evaluation of the educational programmes' quality should be used; the educational programmes should be accredited in more countries.
- 3) The importance and attractiveness of the «Job Fair» should be enhanced for all stakeholders (employers, students, University).

4. RECOMMENDATIONS FOR IMPROVEMENT

Thus, based on the analyses of the presented documents, meetings and interviews, conducted during the online site-visit, with the purpose of enhancing the quality of delivering the educational programmes under review the Review Panel recommends:

1. The training in practical skills of students should be improved in compliance with the changing requirements of the labour market.
2. All stakeholders should be involved in the development of the educational programmes; a mechanism for employers' involvement in this process should be developed.
3. The system of cooperation with the professional community should be developed concerning improvement of standards for the evaluation of learning outcomes for the training of highly-qualified specialists.
4. New educational technologies should be continuously used, including the digital ones, thus providing a comprehensive approach and diversification of training methods.
5. More complete information should be published on the website in English in compliance with the version in Russian; the information should be published in other languages, for example, in Chinese.
6. A number of foreign partners should be increased for degrees' recognition.
7. When delivering the educational programme «Industrial Pharmacy», more foreign lecturers and University subdivisions (Departments, laboratories) should be involved in order to provide the best compliance with the disciplines/practices.
8. The Institute of Pharmacy should develop a mechanism for regular participation of foreign teachers in the educational process, in particular, for delivering the educational programme "Pharmacy".
9. An optimum number of foreign students in an academic group should be established in order to guarantee high quality of education.
10. The procedure of graduation works' defense should be made available and more comprehensive for the students of the programme «Industrial Pharmacy».
11. Employer-sponsored education should be developed in order to train specialists in compliance with the regional requirements.
12. The importance and attractiveness of the «Job Fair» should be enhanced for all stakeholders (employers, students, University).

5. CONCLUSION

Based on the self-evaluation report analysis, documents and data submitted the External Review Panel has come to the conclusion that the educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01) delivered by I.M. Sechenov First Moscow State Medical University of the Ministry of Healthcare of the Russian Federation **fully comply** with the standards and criteria of public accreditation of the National Centre for Public Accreditation.

The Panel recommends that the National Accreditation Board accredit the educational programmes «Pharmacy» (33.05.01), «Industrial Pharmacy» (33.04.01) delivered by I.M. Sechenov First Moscow State Medical University of the Ministry of Healthcare of the Russian Federation **for the period of 6 years.**

ANNEX A

SCHEDULE OF THE SITE VISIT OF THE EXTERNAL REVIEW PANEL

Time	Activity	Participants
13 October, Tuesday		
09.00 - 09.20	First meeting of the Panel	
09.20 - 09.30	<i>Break</i>	
09.30 - 11.00	Meeting of the ERP with the University administration and people responsible for accreditation	
11.00 - 11.10	<i>Break</i>	
11.10 - 12.40	Presentation of the Quality Control Service, material and technical resources and the library Meeting with people responsible for material and technical resources	
12.40 - 13.30	LUNCH	
13.40 - 14.50	Meeting with Institute Directors	
14.50 - 15.00	Break	
15.00 - 16.10	Meeting with Heads of Departments	
16.10 - 17.00	Internal meeting of the Panel, summing up the first day, filling in individual assessment forms	

Time	Activity	Participants
14 October, Wednesday		
09.30 – 09.50	Internal meeting of the Panel	
09.50 – 10.00	<i>Break</i>	
10.00 – 11.10	Meeting with graduates	
11.10 – 11.30	<i>Break</i>	
11.30 – 12.40	Meeting with teachers	
12.40 – 13.30	LUNCH	
13.30 – 13.40	<i>Break</i>	
13.40 – 14.50	Meeting with students	
14.50 – 15.00	<i>Break</i>	
15.00 – 16.10	Meeting with employers	
16.10 – 17.00	Work with the individual assessment forms	
15 October, Thursday		
09.00 – 11.30	Internal meeting of the Panel: discussion of preliminary results of the site visit, preparation of the oral report of the panel	
11.30 – 12.00	<i>Break</i>	
12.00 – 13.00	Closing meeting of ERP with the representatives of the University	

ANNEX B

PARTICIPANTS OF THE MEETINGS

University administration, people responsible for accreditation:

Nº	Name	Position	Contact details
1.	Petr Glybochko	Rector	rektorat@sechenov.ru
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Heads of University's subdivisions:

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Institute Directors:

Nº	Name	Position	Contact details
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1.	Galina Ramenskaya	Director of the Institute of Pharmacy	ramenskaya_g_v@staff.sechenov.ru
Master Programmes Centre (Master programme "Industrial Pharmacy")			
2.	Yulia Fedorova	Director of the Master Programmes Centre	fedorova_yu_v@staff.sechenov.ru

Heads of Departments:

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5.	Alexander Luferov	Head of the Department of Pharmaceutical Science	lufarov_a_n@staff.sechenov.ru
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Teachers:

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10.	Irina Selivanova	Professor of the Department of Chemistry	selivanova_i_a@staff.sechenov.ru
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12.	Vasiliy Beliaev	Associate Professor of the Department of Industrial Pharmacy	belyaev-mma@yandex.ru
13.	Natalia Nikolenko	Assistant of the Department of Industrial Pharmacy	nikolenko_n_s@staff.sechenov.ru

Students:

№	Name	Field of Study	Year	Contact details
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1.	V. Rychka	33.05.01. Pharmacy	4	vika.rychka@yandex.ru
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Graduates:

№	Name	Place of work	Position	Contact details
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1.	I. Sadkovskii	Department of Pharmaceutical Technology	Postgraduate student	
2.	C. Sysueva	LLC Miopharm	Manager	sv@miopharm.info
3.	O. Nefidova	Scientific Centre for Expert Evaluation of Medicinal Products of the Ministry of Health of the Russian Federation	Analyst at the Department of Coordination Activities, Management and Control Division	
4.	Vladimir Zenin	Federal Research Centre "Fundamentals of Biotechnology" of the Russian Academy of Sciences	Junior Researcher	
5.	Svetlana Kravchenko	LLC NPF Materia Medica Holding	Junior Specialist at the Department of Clinical Studies	
6.	Aleksandr Vinogradov	Armed Forces of the Russian Federation	Head of the Department of Medical Supply	
7.	Mikhail Lezhnev	LLC KRKA-RUS	Expert in Clinical Studies	
8.	Daria Dorofeeva	LLC Allergifree	Head of the Pharmacy	
9.	Ilya Koveshnikov	Covance	In-house CRA	
10.	Polina Martianova	ICON Clinical	Site manager	

		Research LLC		
Master Programmes Centre (Master programme "Industrial Pharmacy")				
11.	Maksim Grinin	Federal Medical and Biological Agency	Head of the Division of Innovation Technologies, Department of Translational Medicine and Innovation Technologies	pharmresearch@mail.ru
12.	Anna Nigmatullina	LLC Farmasintez-Tiumen	Head of the Quality Control Department	a.nigmatullina@pharmasintez.com
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Representatives of the professional community:

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7.	Igor Shokhin	Director General, LLC CFA	
8.	Dmitri Chugaev	Deputy Director, Department of Monitoring, Analysis and Strategic Development of Healthcare of the Ministry of Healthcare of the Russian Federation	
Master Programmes Centre (Master programme "Industrial Pharmacy")			
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ANNEX B

THE SCALE OF ASSESSMENT PARAMETERS OF A STUDY PROGRAMME

Nº	Standards	Assessment of the study programme			
		Full compliance	Substantial compliance	Partial compliance (needs improvement)	Non-compliance
1.	Policy (goals, development strategy) and quality assurance procedures of a study programme	*			
2.	Design and approval of programmes	*			
3.	Student-centred learning, teaching and assessment	*			
4.	Student admission, support of academic achievements and graduation	*			
5.	Teaching staff	*			
6.	Learning resources and student support	*			
7.	Collection, analysis and use of information for managing the study programme	*			
8.	Public information		*		
9.	On-going monitoring and periodic review of programmes	*			
10.	Cyclical external quality assurance of study programmes	*			