

National Standards for Accreditation of Pharmacy Colleges in Iraq

National Council for Accreditation of Pharmacy Colleges

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Revised by
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INTRODUCTION

The Deans of Colleges of Pharmacy in Iraq have approved the development of basic minimum standards for accreditation of pharmacy colleges in the country to ensure that the pharmacy education programs produce pharmacists that are prepared to meet the needs of the health services. The standards presented in this document are based on the recent recommendations of the World Health Organization and the World Federation for pharmacy Education

While the overall benefit of the accreditation process is the general improvement of the quality of pharmacy education, a secondary benefit is the verification of the quality of the pharmacy education program in an individual college. It is the responsibility of each pharmacy college to develop and implement a curriculum that achieves the college's own goals and the objective of producing competent pharmacists.

1. MISSION

- 1.1 The pharmacy college must have a documented mission statement, aims and educational objectives to graduate a competent pharmacist who is suitably prepared to meet the needs and demands of the health services. The mission statements and objectives must be set with the participation of key stakeholders: Dean; college faculty; students; health and education authorities, health professional associations and health societies, community and civil society.
- 1.2 The curriculum must be governed by the quality and amount of information to be learned which would qualify graduates to deal competently with the common and important health problems in the community and to be life-long learners.

2. CURRICULUM

2.1 Goals

- 2.1.1 The overall goal of undergraduate pharmacy education must be to produce broadly educated pharmacists who are competent to practice safely and effectively.
- 2.1.2 Graduates must have an appropriate foundation to prepare them not only for functioning as a pharmacist upon graduation but also for further training and the pursuit of life-long learning and readiness for further training.
- 2.1.3 Emphasis must be placed on professional behavior and values in the practice of pharmacy science, rather than merely on the acquisition of a comprehensive list of current knowledge and pharmacy skills.
- 2.1.4 The program must be responsive to the health and development needs of the community and ensure engagement of the community and drug technology and follow up.

- 2.2 **Objectives** of undergraduate pharmacy education: The objectives must aim at producing pharmacists who are competent and equipped to respond to the health needs of individuals and their families based on a service that is compassionate, caring and takes into consideration human rights and gender equity. The competencies required in the student at the point of graduation must be defined. They must include the skills of continuing professional development.
- 2.3 **Program duration:** The duration to implement the program in Iraq is five years (equal to 150 weeks) that is based on addressing common health needs and problems.
- 2.4 **Curriculum design and organization:**
- 2.4.1 The curriculum must transmit essential factual knowledge, impart requisite professional skills in communication and patient management, develop critical thinking and analytical ability and enhance the development of desirable professional behavior and values founded in pharmacy ethics relevant to the Iraqi culture.
- 2.4.2 The units into which the curriculum is divided must demonstrate adequate core content to ensure that competencies required in terms of knowledge, skills and professional behavior for entry into pharmacy practice are met.
- 2.4.3 The curriculum should provide opportunities for self-directed learning, for taking optional/elective units and for gaining exposure to a wide range of institutional and community experiences.
- 2.4.4 Students must spend at least three academic years of their training in direct contact with individuals, families and the community with increased clinical responsibility under supervision. Students should be exposed to patients and community as early as possible.
- 2.4.5 The curriculum must enable the students to acquire appropriate knowledge, skills and professional behavior relating to disease prevention, health promotion and community health and drug preparation and dispensing.
- 2.4.6 Pharmacy ethics must be an integral part of the curriculum.
- 2.4.7 Basic science teaching must be relevant to the overall objectives of the pharmacy college, and such relevance must be apparent to the faculty and students. Thus, basic science courses must illustrate the importance of principles being taught to the understanding of health and disease, both at the individual and community level.
- 2.4.8 Pharmacy practice must be taught in such a way that the underlying scientific principles and humanitarian values are reinforced.
- 2.4.9 Staff from basic science department should be involved in teaching clinical disciplines, as is the involvement of pharmacists in teaching basic sciences.

- 2.4.10 An appropriate level of horizontal (concurrent) and vertical (sequential) integration must be in place in order to achieve the educational objectives.
- 2.4.11 The pharmacy college must inform the students, faculty and the clinical sites the standards expected and required from the student at the end of each year.
- 2.5 Curriculum implementation: Colleges must demonstrate that they have processes in place that allow the overall content and balance of the curriculum and its assessment to be defined in relation to the stated objectives of the pharmacy college. A curriculum committee must exist and be given the authority for planning and overseeing the comprehensive curriculum and must have the ability to exhibit sufficient control over the curriculum to secure its objectives and development.
- 2.6 Teaching and learning methods and educational settings must be consistent with the college educational objectives.
 - 2.6.1 Teaching methods in different settings (lectures, tutorials, site visits, practicums) must use strategies which promote student-centered rather than teacher-centered learning, encourage active student inquiry, stimulate analytical thinking and organization of knowledge, and foster life-long learning skills.
 - 2.6.2 The college must ensure that students are made aware of the importance of information technology and health informatics and that opportunities are provided for their learning and practice.
 - 2.6.3 Professional pharmacy skills must be introduced early in the curriculum and integrated with basic pharmacy sciences. Skills laboratories must be developed and used in the preparation of students for their first day in practice.
 - 2.6.4 Students throughout the program must be exposed to a range of settings in which health care is delivered and health promotion is practiced. In addition to teaching hospitals and primary health care centers, students must also have the opportunity to work in the community, with families, in community health centers, in rural hospitals, in general practice, and in centers for those with chronic mental or physical disability and workplace to address occupational health.
 - 2.6.5 Students must be exposed to common health problems and drug prescription that are not seen in the hospital setting. They must be given the opportunity to experience the effect of the family and the community environment on symptom expression and therapeutic responses.
 - 2.6.6 Mechanisms must be in place to ensure that all clinical placements are well organized and adequately supervised. The objectives and the assessment of all clinical placements, in hospitals and in the community must be clearly defined and made known to both the students and the teachers.

- 2.6.7 It is desirable that students are given the opportunity to undertake a supervised elective study in areas such as social or environmental and community service with identified objectives and for a minimum period of four weeks, and which is assessed by the Faculty.
- 2.6.8 The student should have at least one research project through the study period. Students must be exposed to issues and concerns related to pharmacy research ethics and be guided in the development of research ethical professional behavior.

3. STUDENT ASSESSMENT

3.1 Student assessment

- 3.1.1 Methods of student assessment must allow students to demonstrate that they have achieved the overall objectives of the course. Methods of summative assessment must be explicit and made known to the students at the outset of the curriculum or its component.
- 3.1.2. Colleges should use “blue prints” in all student assessments to ensure systematic and objective assessment based on relevant learning objectives.
- 3.2 Continuous assessments must play an integral role in the education of pharmacy students.
- 3.3 Methods of student assessment (formative and summative) may comprise a variety of approaches, e.g. written assessments, oral assessments, projects, documentation of the performance of practical procedures (log book), site visit checklists and assessments and clinical case examinations with real or simulated patients.
- 3.4 examinations must form a significant component of the overall process of assessment in the clinical disciplines.
- 3.5 Students must also be assessed on communication skills and professional behavior towards patients and other members of the health care team.

4. MONITORING AND EVALUATING THE PROGRAMME

- 4.1 Mechanisms for monitoring and evaluating the curriculum: Each pharmacy college must develop mechanisms for monitoring and evaluating the curriculum that are disseminated and known to faculty and students. Representative student as well as faculty opinions must be obtained regularly for each component of the curriculum and evaluated by the appropriate committee, in order to identify problematic areas and initiate corrective measures. Other pathways for student feedback on the curriculum must also exist. High pass or failure rates need to be thoroughly investigated by the pharmacy college.

4.2 Quality of graduates:

- 4.2.1 Pharmacy colleges must have mechanisms for obtaining feedback about the performance of their graduates from the graduates themselves, from the involved faculty, from civil society and from the health institutions where their students work as interns and residents after graduation.
- 4.2.2 Pharmacy colleges must respond to community and employer perceptions about the performance of their graduates.

5. STUDENTS

- 5.1 Selection of students: Students selected for a pharmacy college must have successfully completed their formal secondary education and admission interview. The pharmacy colleges may choose to apply a student admission or placement test.
- 5.2 Size of student intake: The recommended intake must be subject to the available resources and fulfillment of requirements such as student to faculty ratios. Student ration is determined for theory, laboratory and pharmacy settings.
- 5.3 Student support services: Support services must include access to counseling services with trained staff, a student health service and student academic advisers. Students must be advised on the risks to themselves and to patients in dealing with infectious diseases. The medical school must have a policy on the immunization of students against infectious diseases, and a mechanism for monitoring its implementation.
- 5.4 Personal development of students: The curriculum must provide opportunities for extracurricular activities for students in pursuit of their personal and professional development.

6. STAFF

- 6.1 Faculty to student ratio: The various cadres of academic staff must be available in sufficient quantities such that the staff to student ratios is as follows: 1:10 for clinical learning; 1:6 for laboratory; 1:15 for group work; and 1:60 for lectures. At least 70% of the faculty must be full time. Each department must have at least one full-time professor or assistant professor. Departments must also have adequate numbers of nonacademic support staff (secretaries, technicians).
- 6.2 **Qualifications for recruitment and promotion of academic staff:** All faculty involved in teaching must be required to have completed training in teaching and supporting pharmacy students. This includes those who are not members of the medical college but who still teach and support pharmacy students, such as in the community or elective trainers from health services, i.e. hospitals and primary health care centres, who should be trained on teaching and learning methods.

Where difficulty in recruiting staff exists, the pharmacy college must recognize the problem and take appropriate action to resolve it, such as:

- 6.2.1 Ensuring faculty recruitment and promotion are guided by the university regulations. In the case of private pharmacy colleges, the university regulations in Iraq must guide the process of recruitment and promotion.
 - 6.2.2 Encouraging non-medically qualified basic science teachers to teach their subjects in such a way that relevance to medicine is apparent to students.
 - 6.2.3 Making joint appointments between basic science and clinical departments.
 - 6.2.4 Making part-time appointments.
 - 6.2.5 Making joint appointments between university and hospitals.
 - 6.2.6 Conferring academic designation for hospital or community practitioners involved in teaching and research.
 - 6.2.7 Allowing promotion of part-time clinical faculty according to the university regulations.
 - 6.2.8 Ensuring that faculty are publishing research according to set criteria.
- 6.3 Academic staff development and career review:
- 6.3.1 Each college must have a pharmacy education unit or department with a clear policy for the unit/department.
 - 6.3.2 Pharmacy colleges must have in place a policy for staff development and career review. The process must be formative and provide opportunities for the mentoring of staff by their immediate superiors and feedback from students.
 - 6.3.3 Staff must have access to a staff development program appropriate to their developmental needs.
- 6.4 Teaching support and advice on evidence-based medicine teaching and learning must be available.
- 6.5 An up-to-date and well considered plan for human resources development must be in place.

7. EDUCATIONAL RESOURCES

- 7.1 Teaching facilities on campus: The pharmacy college must have adequate resource facilities for diverse learning settings such as lectures, tutorials and practical classes, including auditoriums, laboratories (multi-disciplinary, basic pharmacy sciences and professional skills laboratories), dissection rooms and anatomy/pathology museums, tutorial rooms, audio-visual equipment, laboratory equipment and computers for satisfactory delivery of the curriculum. The physical resources must respond to the curriculum structure, organization and implementation.
- 7.2 Learning resource facilities:

- 7.2.1 Library resources including virtual library: The school must have a collection of reference materials that are adequate to meet the curriculum and research needs of the students and faculty, and support staff must be available to help the students. It is advisable that students have access to computer-based reference systems. A core collection of essential journals must be available in paper and/or electronic form and ensuring that the most recent periodicals are available and the number of referenced books.
- 7.2.2 Learning resource center: This must be capable of providing support to learning and teaching including established skill laboratories and the production of audiovisual aids and electronic networking facilities.
- 7.3 Clinical learning:
 - 7.3.1 Clinical learning environment/teaching primary health care and hospitals: Sites for teaching and clinical environments, including primary health care centers and teaching hospitals, must meet the health institutions accreditation standards. In case there is a need to expand the clinical teaching of students beyond the available university hospital, an official agreement must be reached between the medical school and clinical teaching facility, indicating clearly the terms of cooperation and commitment. This agreement must be subject to regular review and there must be clear evidence that the relationship is functioning effectively.
 - 7.3.2 Specialties and teaching beds: Affiliated health care institutions must be suitable for medical education and have inpatient beds and outpatient clinics in main specialties (surgery, medicine, pediatrics, obstetrics and gynecology, accident and emergency, ear, nose and throat, dermatology and other specialties) based on the health problems.
 - 7.3.3 Student to hospital bed ratio: With regard to the specialties of medicine, surgery, obstetrics and gynecology and pediatrics, a pharmacy college must have access to at least 3 occupied hospital beds per student in a clinical clerkship rotation at a given time. A pharmacy college with an intake of 100 students per year must be affiliated to a teaching hospital(s) providing approximately 300–500 beds with high occupancy rate.
 - 7.3.4 Ambulatory care services: Access to outpatient clinics and primary health care centers must be available. Learning and teaching in ambulatory care services and primary care settings are essential for the training of medical students.
 - 7.3.5 Educational, library and on-call facilities must be available for students in the health care facilities.
- 7.4 Student welfare facilities: Adequate physical facilities must be provided for student study, sport and recreation.

8. ADMINISTRATION AND GOVERNANCE OF THE PHARMACY COLLEGE

8.1 Administration and structure within the university: The College must have control over its curriculum in order to allow its objectives to be achieved, as well as sufficient autonomy to be able to direct resources in an appropriate manner to achieve the overall objectives of the college. There must be a clear and direct line of responsibility for the curriculum and its resources.

8.2 Relationship with affiliated institutions and the community:

8.2.1 University academic staff working within teaching hospitals and other health care institutions must be integrated into the service and administrative activities of the affiliated institution.

8.2.2 Institutions associated or affiliated with university pharmacy colleges must share the educational and research objectives of the medical school and be accredited or working towards being accredited.

8.2.3 There must be effective methods for the pharmacy college to communicate with, and receive the opinions of, pharmacy practitioners, other health professionals, community health workers and recipients of health care in the community.

8.3 Funding:

8.3.1 Each college must ensure that its financial resources are sufficient to allow the college's objectives to be achieved and to maintain high standards of pharmacy education.

8.3.2 Sources of financial support must be transparent and disclosed.

8.4. Governance

8.4.1. An up-to-date and accurate organizational chart must be provided and must include the relationship with the university or affiliated institution.

8.4.2. All staff must be informed about their roles and responsibilities with effective coordination and leadership across the college.

8.4.3 A central registry of all policies and regulations must be available to staff and students.

9. RESEARCH

9.1 An active research environment within a pharmacy college is necessary. Departments must strive to achieve an overall balance in their contributions in the areas of teaching, research and clinical service. Opportunities must be provided for students to be involved in research

activities at any stage of their pharmacy education process. The college must have a time plan to develop and implement research.

10. CONTINUING PROFESSIONAL DEVELOPMENT

- 10.1 Pharmacy colleges must recognize the need for continuing professional development for health professionals and the community.
- 10.2 The college must have a written plan on continuing professional development that is known to faculty and staff.
- 10.3 The college must ensure that faculty members are participating actively in continuing professional development. Regular symposiums, workshops and conferences should be organized to fulfill these needs.