The processes by which the pharmacy residency program at King Faisal Specialist Hospital and Research Centre-Riyadh, Saudi Arabia became the first American Society of Health-System Pharmacists (ASHP) accredited program outside the United States is described. This article provides key points for a successful program for other pharmacy residency programs around the world. Additionally, it points out the need for establishing international standards for pharmacy residency programs.

Keywords: pharmacy residency, education, Saudi Arabia, international residency program, accreditation

The Kingdom of Saudi Arabia has a population of approximately 28 million and has a national healthcare system that provides free health care services to all citizens.1-3 The healthcare system is regulated and controlled by various governmental agencies such as the Saudi Food and Drug Authority, which regulates pharmaceuticals, medical supplies, and medical devices; the Saudi Commission for Health Specialties (SCFHS), which regulates health-related training and licenses healthcare providers; and the Ministry of Health, which provides healthcare coverage to approximately 60% of Saudi citizens.2 The remaining 40% of Saudi citizens are covered by various health care sectors, including the ministry of defense, ministry of interior, National Guard, university hospitals, specialty hospitals, and private sectors.

Pharmacy practice in Saudi Arabia dates back to the late 1950s when the first school of pharmacy was established.4 The clinical pharmacy concept was introduced in the mid-1970s when clinical pharmacists from the United States implemented pharmacokinetics, parenteral nutrition, and drug information services at King Faisal Specialist Hospital & Research Centre-Riyadh. However, providing high-quality pharmaceutical care to patients remained a major challenge for pharmacists in Saudi Arabia. Among the factors contributing to the slow development of pharmaceutical care were the limited availability of clinical practice sites for practice experiences and practical training, and the lack of extensive postgraduate training programs.5

The American College of Clinical Pharmacy (ACCP) and the American Society of Health-System Pharmacists (ASHP) have endorsed residency training as the vehicle by which progress in the profession of pharmacy should take place. The report by the ACCP task force on residency recommended requiring residency training by 2020 for all pharmacists who are expected to provide direct patient care. They also asserted the need for residency program accreditation to ensure “that programs meet or exceed established residency standards.”6,7 In addition, the American Association of Colleges of Pharmacy acknowledged that pharmacy residency training should be included in the mission of all member institutions, emphasizing the support of academic pharmacy for residency training.8

The first pharmacy residency program in Saudi Arabia was established at King Faisal Specialist Hospital and Research Centre-Riyadh in 1997 in affiliation with the St. Louis College of Pharmacy, St. Louis, Missouri.9 In 2001, it was changed to a 2-year program and was then accredited by the official local accreditation body for health training (SCFHS). As the program became a national program under the SCFHS and to align with their standards, continuation with the affiliation for our site...
with St. Louis College of Pharmacy was not possible. The program underwent multiple revisions and developments until it reached its current structure and continues to be under the umbrella of SCFHS. A description of the program and its development and structure have been described elsewhere.7

King Faisal Specialist Hospital & Research Centre- Riyadh, Saudi Arabia, is one of the leading institutions in the Middle East and is considered a role model with regard to providing high-quality patient care. Moreover, it is a major tertiary care, referral, and teaching hospital in the Kingdom of Saudi Arabia. Acquiring ASHP accreditation was a strategic goal of the hospital. The justification for seeking this accreditation included assurance of compliance with an established high level of practice standards that would reflect positively on the overall quality of services provided to patients. Also, having accreditation would ensure that the program would undergo peer review to fulfill requirements needed to provide a state-of-the-art practice environment for residents. The purpose of this paper is to describe the processes and steps that were undertaken and resulted in the granting of ASHP accreditation to the first program outside the United States, and to describe the key points that resulted in a successful program. Also, this paper is intended to bring attention to the need for establishing international standards for pharmacy residency programs. The preparatory process involved consulting with the ASHP accreditation office regarding the institution’s eligibility to apply for residency accreditation. Once the approval was granted by ASHP administrators, the decision was made to send the residency program director to the midyear clinical meeting and for her to attend workshops related to residency program accreditation (eg, the residency learning system workshop) to acquire the necessary knowledge and skills to run a successful program.

Moreover, acquiring approval and support from hospital administration to ensure the institutional commitment to this move and to secure hospital funding throughout the accreditation period was a necessary initial step. This required writing a comprehensive proposal that included justifications (ie, benefits of the program to the institution and subsequently the pharmacy profession in the country) and action plan during the accreditation process. In addition, the proposal focused on the lack of accredited postgraduate training programs for pharmacists and the need for highly trained pharmacists to provide high-quality patient care. Fortunately, given that the hospital is a Joint Commission International-accredited center and periodically performs benchmarking with North American hospitals with regards to workforce, organizational structure, safety, and quality of care, and that our leadership administrators are US-trained and were familiar with clinical pharmacy and pharmacy practice concepts, the proposal was approved in a timely fashion and with full support.

The operational component in preparation for accreditation took place immediately following the approval of the proposal by hospital administration. To ensure that every ASHP standard was fully addressed, we established a departmental ASHP accreditation taskforce. The taskforce was primarily charged with overseeing all preparatory efforts and identifying and addressing areas of improvement before the scheduled accreditation visit. Every other week, taskforce members met for a 1-hour period to discuss the Residency Learning System, including the tools needed to implement each educational goal and objective, review the residency manual describing the goals and objectives, review the academic and professional records for preceptors to determine their eligibility for preceptorship, and develop a preceptor development plan to be conducted throughout the residency. Moreover, we ensured that evidential support was available for every international standard addressed by ASHP and that any element component determined to be in noncompliance or in partial compliance with the standards was further discussed and a plan of action was developed.10

The next step focused on recruiting residents and selecting preceptors for each learning experience. Residents were selected based on a combination of factors: performance on the admission examination (multiple-choice questions), which is used to assess applicants’ knowledge and competency in pharmacy and is considered comparative to the North American Pharmacist Licensure Examination; cumulative grade point average; and interview skills. The residency program receives an average of 30-40 applications per year. Most of these applicants are either recent graduates with a bachelor’s degree in pharmacy or have a degree and 1 to 3 years of pharmacy practice experience.

Preceptors were selected based on qualifications, years of experience, and willingness to teach. They were required to complete academic and professional records, which were reviewed thoroughly by the ASHP taskforce for eligibility. In terms of willingness to teach, we were surprised by the number of preceptors interested in becoming mentors and facilitators of the accreditation process. Eligible preceptors received a letter outlining their roles and responsibilities, and were required to attend the preceptor development program and to complete a continuing educational module on a monthly basis. Preceptor development programs were conducted on a biweekly basis as a 1-hour session. Presentations were developed
using Microsoft PowerPoint and content was created using the ASHP preceptor information Web page. Promotion of the preceptor training modules was done via e-mail, pharmacy newsletter announcements, and distribution of flyers throughout the pharmacy department. Because the Accreditation Council for Pharmacy Education (ACPE) provider status had not been granted at the time the hospital was preparing for ASHP accreditation, preceptors were granted SCFHS credits but not ACPE continuing education credits.

After finalizing the preparation process in the department and completing the ASHP pre-survey checklist, the ASHP accreditation application was submitted and the ASHP administration granted the program candidate status. At that time, the site decided to conduct a mock survey to evaluate its readiness prior to the official ASHP accreditation visit.

A surveyor with extensive ASHP accreditation experience was selected and agreed to conduct the mock survey. In general, the onsite mock residency survey was based on a series of discussions between the surveyor and individuals involved in the training program. Key areas that were evaluated during the mock survey included the operational and clinical aspects of pharmacy services, clinical teaching roles, timeliness for overall completion of evaluations, quality of the residents’ and preceptors’ evaluations, and the processes used for communication among preceptors. The visit also included tours to pharmacy practice sites and patient care areas, in addition to interviews with various health care providers, including pharmacists, physicians, and nurses. At the conclusion of the visit, the surveyor provided a formal written report outlining areas of partial compliance and noncompliance, along with consultative recommendations based on interviews, tours, and documents provided.

The official ASHP survey visit, conducted in April 2011, evaluated the pharmacy residency program with a focus on areas of partial compliance or noncompliance. While few areas were deemed as being in “partial compliance,” the significance of each of these ratings was evaluated individually. Correction of areas designated as being in partial compliance ranged from making a minor adjustment in the residency program structure, to making a much larger change in pharmacy services provided by the pharmacy department. A detailed response to all partial compliance findings was submitted, addressing consultative recommendations and accompanied by appendices to provide a tangible demonstration of the improvements made after the residency survey. Appendices included actual examples of the documents used (eg, an actual evaluation with comments, policies created, meeting minutes) and other relevant documentation that showed that implementation had occurred. The surveyor report and residency program’s response were presented to the commission on credentialing, and based on the report, King Faisal Specialist Hospital and Research Centre-Riyadh was granted ASHP accreditation status for a 6-year period in September 2011. Challenges encountered throughout the preparation process along with recommendations to other institutions on how to overcome such challenges are summarized in Table 1.

**Table 1. Challenges Encountered in and Recommendations for Pursuing International ASHP Accreditation**

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Recommendations</th>
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<tr>
<td>Convincing the organization leadership and obtaining their commitment and support</td>
<td>Submit a structured proposal justifying the need for ASHP accreditation and the impact on the organization and patient care</td>
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<tr>
<td>Considering the national (local) residency program standards, if present, and harmonizing them with the international ASHP standards</td>
<td>Maintain an open dialogue with representatives from the local pharmacy residency program accreditation body, as well as the ASHP, to ease all barriers and overcome challenges</td>
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<td>Tracking down the development in achieving the goal of ASHP accreditation</td>
<td>Incorporate the goal in the departmental scorecard. Establish a taskforce to perform a gap analysis of the current residency program versus published international standards. The taskforce, to follow a pre-specified deadline for each stage of the preparation process</td>
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<tr>
<td>Adapting the residency learning system</td>
<td>Residency program director, other residency leaders and residents should familiarize themselves with the international residency accreditation standards</td>
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Abbreviations: ASHP = American Society of Health-System Pharmacists.

**CONCLUSION**

Pursuing ASHP accreditation can be a strategic goal for many international residency programs that seek...
higher standards of practice and training. Becoming the first ASHP-accredited program outside the United States sets the stage for global advancement in standardization of pharmacy residencies. Without the advocate role of ASHP in improving pharmacy practice and training around the world, this goal cannot be achieved.

ACKNOWLEDGEMENT

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REFERENCES