

## EDITORIAL

# Pharmacy Education: Upgradation and Clinical Rotation to Produce Quality Professionals in Pakistan

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Pharmacy is an expanding profession with new and expanded duties for pharmacists. Pharmacology training should adjust to local and global trends to graduate quality pharmacists<sup>1</sup>.

The five years of basic pharmacy education is inadequate for excellent quality of treatment, which might impair patients' health. Several nations, including the USA, have expanded basic pharmacology training to 6 years and established Pharm D as entrance level for any area of practice<sup>2</sup>. Countries that have implemented postgraduate training produce practice-ready pharmacists in varied sectors, depending on speciality and local requirements. Regional pharmacy authorities supply a large number of institutional rotation locations for pharmacy students, whereas hospital rotations have become a career necessity<sup>3</sup>. This rotation aims to provide students experience as pharmacists in a multidisciplinary context. The rotation's goals and activities include comprehending patients' drug-related requirements, pharmacists' regulatory, ethical, and professional duties, and medication distribution<sup>4</sup>. This clinical rotation offered a number of issues for institutions, especially in offering possibilities for students to engage in the pharmacist's job. Students should perform a set of specific clinical activities for which they are educated in hands-on workshops, followed by observation by a clinician or physician. Students do activities under indirect supervision after skill assessment. This technique lets students participate in direct medical care and help specific patients.<sup>5</sup>The duration of the rotation is inadequate for skill development, thus students must do duties under indirectly supervision of the institution's physician to begin hospital pharmacy practice.

The orientation should include training sessions organized by the faculty of medicine & surgery, including allied, about clinical tasks and skills students may anticipate accomplishing throughout their clinical training in the ward. These skills should include medication counseling and seamless care, taking medication histories, monitoring for first dose or long-term in-hospital side effects, having to perform allergy assessments, and converting total parenteral nutrition to oral medications when appropriate. Documentation guidelines should also be provided<sup>6</sup>. This scheduled clinical session should provide students a consistent methodology for each clinical activity. The training should concentrate on applying theoretical concepts to direct patient safety and using clinical tools or procedures overseen by a clinician/physician<sup>7</sup>. Students should ask drug-related questions throughout the rotation. During ward grand rounds, physicians should discuss faculty medication safety requirements and patient safety benefits and problems<sup>8</sup>. Verbal or written evaluation is required to evaluate the effectiveness of the rotation & identify future modifications. The observed flaws and program changes should be highlighted.

Thru a planned orientation session before the rotation, preceptors should be given more specific information about the overarching purpose of the cycle (i.e., increasing clinical skills and improving therapeutic knowledge)<sup>9</sup>. Students should choose inpatient facilities where they may engage with patients and develop rotational skills. Students thought speaking with patients would be the most gratifying part of clinical rotation. Each student would visit regular bedside team rounds with their supervising physician/clinician to study multidisciplinary team treatment.<sup>10</sup> Students need to be aware that specialty practices may be more intriguing than general practice. The instruction should be

customized to enhance patient interaction time and enhance quality of instruction by collaborating with pharmacy faculty. The presentation session will be condensed, will concentrate on patient care, and will be conducted during pharmacist orientation before students go to the hospital to acquire skills under the physician oversight and clinician<sup>11</sup>.

The medication information workshop will concentrate on internet resources and pharmaceutical companies for the ward clinical rotation<sup>12</sup>. For clinical training, it would be necessary to be very upfront with preceptors about the degree of assistance needed by Pharm D students when the rotation focuses on strengthening clinical knowledge instead of teaching therapeutic content. The collaborated more closely with particular rotation locations to provide expert clinicians/physicians for students during clinical rotations<sup>13</sup>. The rotational duration is ultimately the faculty of pharmacy's responsibility, although the clinician/physician will help adjust the curriculum and offer student input on the proper period of clinical rotation<sup>14</sup>. The pilot research showed that even early-career students can connect well with patients<sup>15</sup>. Second-year Toronto students may get early hospital experience<sup>16</sup>. Former study mentioned a semester-long training program for the second professional term, consisting of four hours per week for 14 weeks, with the site preceptor determining daily training activities. Weekly academic sessions benefited students and preceptors<sup>17</sup>.

Stakeholders noted a mismatch between graduate capabilities, pharmacist supply, and national demand, underlining the necessity for competency-based frameworks appropriate to each country to avoid an overstock of pharmacists with limited career possibilities<sup>18</sup>. Inadequate training causes this difficulty<sup>19,20</sup>. Thus, the purpose is to establish and assess a novel hospital rotation to expose pharmacy students to the doctor's clinical role and direct patient care. Regardless of the duration and practicalities of an initial exposure rotation, the common message is that students at this level of their formal training can provide direct patient care and that such learning earlier in the curriculum is highly valued by learners and clinicians. Whatever technique the local government uses to enhance pharmacy practice, a clear picture of the requisite competences will assist academic institutions achieve the desired learning goals in general and specialty courses and produces more profession pharmacists in the nation.

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