Enhancing Hospital Pharmacy Attachment: INTEGRATING SIMULATION LABS FOR FUTURE PHARMACISTS

By: Mdm. Nor Elyzatul Akma Hamdan

From December 9th, 2024, to January 10th, 2025, the Hospital Pharmacy Attachment (HPA) was conducted at the Pharmacy Department of Hospital Al Sultan Abdullah, and Faculty of Pharmacy, Universiti Teknologi MARA (UiTM). This programme is designed to equip future pharmacists with essential practical skills and knowledge through structured experiential training. This structured experiential training, offered during the final year of the Bachelor of Pharmacy programme, spans four weeks and is a compulsory part of the curriculum.

The HPA is conducted under two key courses: PHC671 Applied Therapeutics in Infectious Disease and Neoplastic Disorder and PHC673 Hospital Pharmacy. These courses are specifically designed to integrate knowledge with practical skills, offering a distinctive approach compared to traditional pharmacy education by emphasising real-world problem-solving and direct patient care practices, ensuring students gain a well-rounded understanding of hospital pharmacy operations.

HPA offers future pharmacists the opportunity to train in six main pharmacy units: in-patient, out-patient, drug information center, hospital pharmacy administration and store management, chemotherapy drug reconstitution, and total parenteral nutrition. The programme aims to provide students with hands-on experience to complement their theoretical learning.

Simulation Labs

In addition to these core training areas, the Faculty of Pharmacy now features three state-of-the-art simulation labs, setting a benchmark in pharmacy education. These facilities are designed to mirror real-world hospital environments and are among the most advanced in the region, providing students with unparalleled opportunities to develop practical skills that align with industry standards and expectations.

In-patient Pharmacy Simulation

Focuses on training students in dispensing medication, managing inpatient orders, and collaborating with healthcare teams for patient care.

Out-patient Pharmacy Simulation

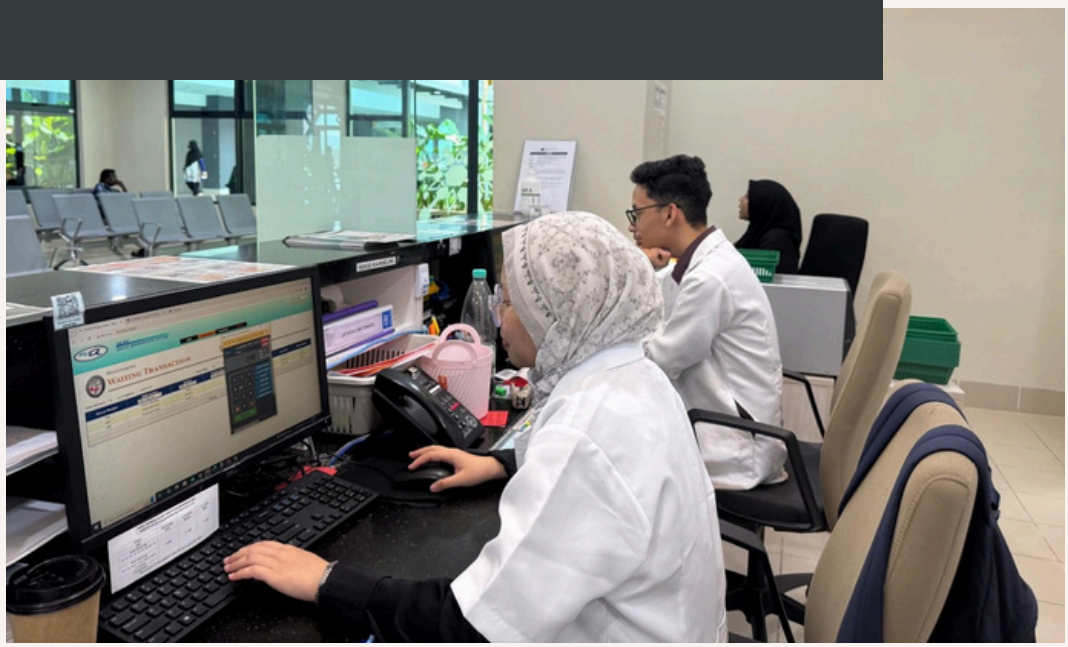
Prepares students to provide effective medication counseling, answer drug-related queries, and optimize pharmacy operations.

Sterile Pharmacy Simulation

TPN & CDR: Provides exposure to sterile compounding techniques, including Total Parenteral Nutrition (TPN) preparation and Chemotherapy Drug Reconstitution (CDR), emphasizing precision and safety.

Expected Outcome

These facilities ensure that students are well-prepared for real-world pharmacy practice, enhancing the overall learning experience. For example, students have shared that the simulation labs helped them build confidence in screening, filling, counterchecking and dispensing techniques, while faculty members have observed significant improvements in students' problem-solving abilities and readiness for pharmacist roles.



Case-Based Learning and Reflection

As part of HPA, students participated in small group discussions based on case scenarios from each pharmacy department. Under the guidance of experienced lecturers, these activities emphasised evidence-based decision-making in pharmaceutical care. Upon completing the attachment, students reflected on their experiences and expressed satisfaction with the programme.

Looking Ahead

With the inclusion of the new simulation labs, the faculty aims to further strengthen its commitment to producing well-trained pharmacists. Expanding the HPA to hospitals under the Ministry of Health is also under consideration, with plans to initiate the attachments in selected hospitals by end-2025. This expansion aims to provide students with access to a broader range of healthcare settings, further enhancing their experiential learning opportunities.