

State-of-the-Art Facilities:

Exploring the Clinical Pharmacy Laboratories

Clinical Pharmacy is a discipline concerning the roles of pharmacists in healthcare settings. In Malaysia, the roles of pharmacists have changed significantly since the past decades when pharmacists used to only be involved in medication preparations and management (procurement, storage, and stock management). Nowadays, medication preparations are becoming a more specialized service which includes extemporaneous compounding, parenteral nutrition preparations, cytotoxic drug reconstitution, and in some centres, preparation of radiopharmaceuticals for patient use.

The roles of pharmacists in the country have also expanded towards patient-centered care with the introduction of the pharmaceutical care concept in which pharmacists play an active role in determining pharmacotherapy management for a patient. This also includes the identification of pharmacotherapy-related problems and recommendations for clinical interventions based on patients' needs.

The Department of Clinical Pharmacy, since its inception, has been dedicated to educating students with the modern concept of pharmacy practice that encompasses both hospital and community settings. With members of the department well-trained in various institutions worldwide and some are practicing in several establishments, this further adds to the unique experience for learning and up-to-date application in the field.

Laboratories under the Department of Clinical Pharmacy are located at Level 4, FF3 Building. The labs provide well-maintained equipment and facilities mostly for teaching and learning purposes for undergraduates, postgraduates, and other government and private organizations.

LABORATORY EQUIPMENT AND FACILITIES

BIOEQUIVALENT RESEARCH LAB:

Bioequivalent Research Lab functions as a teaching and learning lab, as well as a research lab for postgraduate students. The course involved in the teaching and learning activities is PHC633 Clinical Pharmacokinetics and PHP711 Personalised Medicine : Clinical Pharmacokinetics & Pharmacogenomics.



Drug Monitoring System,
Cobas Integra 400

This lab is well-equipped with the Drug Monitoring System, Cobas Integra 400. This lab focuses mainly on:

1. Pharmacokinetic: Bioequivalence, bioavailability and pharmacodynamics studies
2. Drugs & biochemistry test

CLINICAL SIMULATION LAB:



Human Patient Simulator, SimMan 3G

Clinical Simulation Lab functions as a teaching and learning lab. It is designed to mimic the real environment and situation of a hospital ward. The courses associated with this lab are PHC670 Hospital Pharmacy and PHC635 Introduction to Clinical Pharmacy. The lab is also used for final-year students (in-house training).

This lab consists of a Human Simulation, SimMan 3G equipment, which is a high-end equipment that can be used to simulate a real situation in a hospital. This provides an immersive learning experience for students, allowing them to practice and develop their clinical skills.

The SimMan® 3G simulator is a durable patient simulator, and currently, there are 2 simulators in the faculty: SimMan® 3G and SimBaby™. Purchased in 2011, the SimMan® 3G is linked to the Laerdal Learning Application (LLEAP) software to enhance the training session where we can operate SimMan® 3G on the fly or use pre-programmed scenarios. Scenario-based training with SimMan® 3G is an ideal solution for addressing the need to pinpoint areas of personal growth and the importance of team-wide skills like communication, behaviour management, and leadership. Besides Human Simulator, SimMan 3G, this lab also has a medical ventilator machine.

STERILE LAB

Sterile Lab functions as a teaching and learning lab. The courses associated with this lab are PHC673 Hospital Pharmacy and PHC635 Introduction to Clinical Pharmacy. The lab is also used to train final-year students (in-house training).

There is a section in this lab that is designed to mimic the real setting of a sterile room in a hospital. This lab focuses mainly on sterile procedure, aseptic technique, and preparation of total parenteral nutrition (TPN). This lab is well-equipped with Cytotoxic Dispensing Isolator and Laminar Flow.



Cytotoxic Dispensing Isolator

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PRESCRIPTION

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