

Clinical shadowing –Faculty of Medicine Assiut University

Introduction:

This shadowing program took place at the Faculty of Medicine, Assiut University
The program included Six specialties, and over fifty students participated

The main goal was to expose Preclinical medical students early to real clinical life, and to motivate them by showing that every single concept they study has an important application in practice — they learn and then apply

The Program Consisted of Two Steps :

Step 1: It was an introduction to what we will see later in the clinical step. It mainly consisted of lectures that explained the basic principles and prepared students for real hospital exposure

Step 2: It involved direct observation in different hospital departments, where we followed doctors during their clinical work

We organized an opening event to promote the program and initiate student recruitment. we were pleasantly surprised by the overwhelming number of students who enrolled and attended.



Cardiothoracic SPECIALTY.

During this rotation, students were first introduced to Cardiothoracic Surgery through Step 1, which included an overview of the specialty, the anatomy of the chest and heart, The Most Common diseases at Cardiothoracic and interpretation of chest X-rays and CT scans

Following this, students attended the Outpatient Clinic, where they practiced interpreting X-rays and CT scans under supervision

They also participated in Multidisciplinary Team (MDT) meetings, where cardiothoracic surgeons, clinical pathologists, and other specialists discussed complex clinical cases

In addition, students observed surgeries and outpatient consultations, gaining exposure to both the diagnostic and operative aspects of the specialty

Finally, students were encouraged to take part in audit and research projects within the department and to present their findings at conferences, enhancing their academic and professional development



Internal Medicine:

During this rotation, students attended a total of eight sessions — four theoretical and four practical sessions, conducted over four consecutive weeks. Each week included one combined theoretical and clinical session held at the Diabetes and Endocrine Unit

Weekly Learning Objectives:

1- Diagnosis and Evaluation of Diabetic Patients

2- Treatment of Diabetes (Insulin and Oral Therapy)

Overview of insulin types, regimens, and administration techniques

Oral hypoglycemic agents: mechanisms, indications, and side effects

3- Acute and Chronic Complications of Diabetes

4- Interpretation of Thyroid Function Tests

Understanding thyroid physiology and hormonal feedback

By the end of the rotation, students gained essential knowledge and clinical skills in the assessment and management of endocrine disorders, with a focus on diabetes and thyroid diseases

Cardiology:

During the Cardiology shadowing program, students attended three theoretical sessions covering the following topics

Aortic dissection, Cardiac tamponade, Pulmonary embolism, Pericarditis, ECG interpretation, CPR , Arrhythmia , Acute Coronary Syndromes (ACS), and Hypertension.

Additionally, students participated in approximately six practical sessions, where they observed clinical cases, ECG readings and Emergency cardiac Management.

The shadowing aimed to strengthen students' understanding of cardiovascular emergencies and enhance their clinical observation and interpretation skills.



Surgery

During the Surgery Shadowing Program, students were introduced to both theoretical and practical aspects of surgical practice

In Step 1 (Lectures), They learned about emergency management including acute abdomen, trauma, and gastrointestinal bleeding, as well as basic surgical skills such as wound care, suturing, burn management, IV cannulation, fluid therapy, nasogastric tube insertion, and catheterization

They also had an overview of common surgeries and chronic case management like thyroid diseases, breast lumps, and varicose veins. The sessions covered pre-operative assessment, post-operative pain control, and how to deal with complications such as shock and infection

In Step 2 (Clinical Practice), students attended outpatient clinics, observed multidisciplinary team (MDT) meetings, participated in the emergency room (ER), and assisted in operations through observation. They also practiced evaluating patients under supervision, which helped Them link theoretical knowledge to real surgical cases



Tropical Medicine

During the Tropical Medicine shadowing, students attended outpatient clinics and inpatient rounds where they observed the diagnosis and management of common tropical diseases such as malaria, typhoid fever, and schistosomiasis

They were introduced to infection control measures, diagnostic tests, and the interpretation of laboratory results

The shadowing experience aimed to enhance students' understanding of infectious diseases, their prevention, and early detection, while also improving their clinical observation and communication skills

Anesthesia, ICU, and Pain Management Department

Step 1 – Lecturers

Students were introduced to the specialty of anesthesia, including the responsibilities and lifestyle of anesthesiologists. Lectures covered arrhythmia emergencies and peripheral nerve blocks, followed by an online quiz for participant evaluation

Step 2 – Clinical Practice

Students participated in shadowing within the OR, ICU, ED, Pre-operative Assessment Clinic, and Pain Management Unit

They practiced basic procedures such as cannulation, intubation, spinal anesthesia, patient monitoring, and catheterization. In the ICU, they observed mechanical ventilation, oxygen therapy, CVC insertion, and ABG interpretation.

In the ED, they learned the ABCDE approach, airway management, cervical fixation, and FAST examination. Students also practiced interpreting pre-operative investigations and learned about localized pain management techniques