

Hama university
Faculty of Pharmacy
Hospital and clinical pharmacy

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Lecture 1

Introduction

- **Introduce** hospital pharmacy.
- Describe the **roles** of the clinical pharmacist in the hospital
- The **specialties** that pharmacists can work in within hospital pharmacy.
- **Future** developments for hospital pharmacy.

Hospital pharmacy

The hospital pharmacy is defined as that department of the hospital that we can find all the kinds of drugs and service to all kinds of hospital settings





Traditional roles of the hospital pharmacist

- **In past** , prescriptions, and in rare setting the pharmacists were to be found outside of the pharmacy department.
- **Now** pharmacists in hospitals found in all
 - parts of the hospital;
 - on ward rounds with doctors,
 - in the Accident and Emergency Department,
 - in operating theatres
 - outpatient clinics.

Clinical pharmacy

Clinical pharmacy, that is, the **practice of pharmacy**, on wards and in clinical departments.

Many hospital pharmacists are fully integrated into the clinical team, working with doctors, nurses, physiotherapists and other members of the hospital team, to deliver optimal care to patients.

The pharmacist present at the **time of prescribing**, errors in selection of appropriate drug and dosing regimen are minimised, ensuring that the patient receives **maximum** benefit from their treatment with **minimal** side-effects.

Pharmaceutical care

- Pharmaceutical care is the term most often used to describe what a clinical pharmacist does.
- Treatment for each patient under their care, including **screening prescription charts** for safety, appropriateness, effectiveness and side-effects.
- ‘The responsible of drug therapy for the purpose of achieving definite outcomes that improve a patient’s **quality of life.**’

Pharmaceutical care

- During these rounds, the pharmacist will talk with the patient to confirm details such as medication history, when and how a patient takes their medication, and also to enquire whether certain medication, such as antiemetics or analgesics are working and being tolerated.
- The pharmacist must have good communication skills to gather all the information they need from both patients and other health professionals

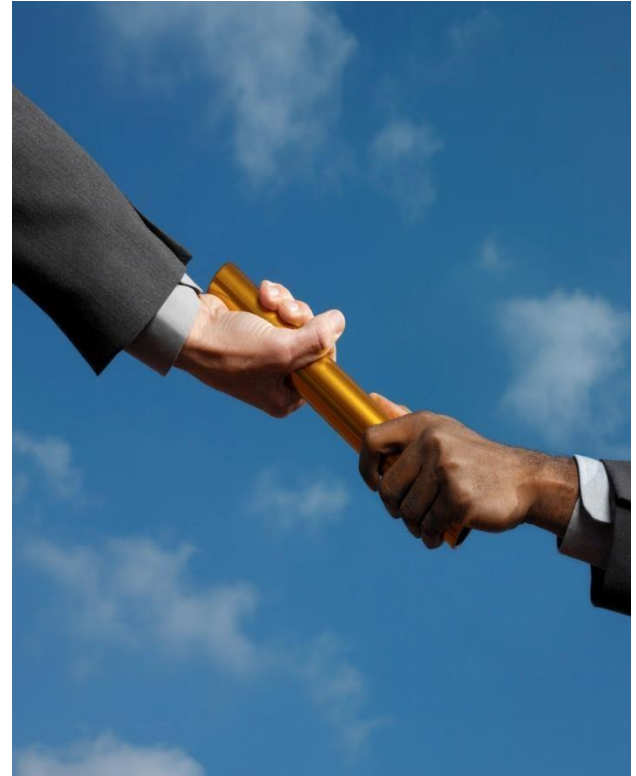
Pharmaceutical care

- The pharmacist can also ensure the drug is **available**, so the patient's treatment is **not delayed**. This combination of prescribing advice and supply of medication ensures timely and safe treatment and improves patient care.
- Pharmacists help and **advise nurses** on **the safe administration** and monitoring of drug treatment.
 - Discuss possible **food–drug interactions**
 - Pharmacists may also participate in **outpatient clinics**.

Pharmacy specialisation

Some pharmacists choose a non-clinical specialty. These include:

- dispensary manager
- education and training
- Medicines information (MI)
- Quality assurance (QA)
- Sterile and non sterile production.



Dispensary manager

- It needs to be ensure that the right **drug** gets to the right **patient** at the right **time**.
- Dispensaries have traditionally been managed by pharmacists, but now by the **pharmacy technician**.
- This has reduced the number of pharmacists needed to dispensary, allowing them to give more time to **clinical activity**, and therefore makes better use of their **training** and **expertise**.

Education and training

- All staff within a pharmacy department must keep **up-to-date** with recent developments in their profession.
- They are responsible for the training and assessment programmes for **pre-registration pharmacists** and **student technicians**.

Education and training

- For newly registered pharmacists start work in a hospital pharmacy, they will often enter a clinical training rotation.
- This involves working in different areas within the pharmacy department (such as medicines information ,dispensary, or sterile production) and on different wards, for periods of 3–4 months; this enables the junior pharmacist to gain experience and skills in different areas of pharmacy and different clinical specialities.

Medicines information

- MI is a service provided by pharmacists in many pharmacy departments for **health professionals**
- MI provides in-depth information on all aspects of drug use. The staff within MI use medical and pharmaceutical texts (e.g. *Martindale*)

Quality assurance

- Pharmaceutical products must be of high quality to ensure patient **safety** and **efficacy** of treatment .
- All must have the appropriate skills and knowledge to carry out **quantitative and qualitative testing** on a range of pharmaceutical products, including medicines in various formulations.
- QA staff are also involved in risk management.

Quality assurance

- ▶ 1 Perform analyses on products manufactured.
- ▶ 2 Develop and assay procedures.
- ▶ 3 Assist research division in special formulations.

Pharmaceutical Research Division

- ▶ 1 Develop new formulations of drugs, especially **dosage forms** not commercially available, and of research drugs.
- ▶ 2 Improve formulations of existing products.
- ▶ 3 Cooperate with the medical research staff of projects involving drugs.

Sterile and non-sterile production

Many hospital pharmacy departments had a production unit that made many different sterile (such as eye drops) and non-sterile (such as creams, ointments and liquid medicines) pharmaceutical products.

Management

- Each area within the hospital pharmacy requires a manager.
- Management roles often include dispensary manager and non -sterile production manager.



THE HOSPITAL FORMULARY

Definition of formulary and formulary system

The formulary system is a method whereby the medical staff, working through the pharmacy and therapeutics committee, evaluates, and selects from among the numerous available drug products those that are considered most useful in patient care.

Benefits of the formulary system

(1) Therapeutic.

(2) Economic.

(3) Educational.

The future of hospital pharmacy

- The future of hospital pharmacy will see the continuation of the **development** of patient centred care.
- The introduction of new technologies, such as electronic prescribing and robotic dispensing, will enable pharmacy staff to spend more time on patient focused activities to
- improve the **outcome** of treatment.
- The fundamental role of the pharmacist, which is to ensure that the patient receives the best **pharmaceutical care possible, maximising** benefit from the medicines they receive