

Clinical Pharmacy

Clinical Pharmacy

Definition

- Clinical Pharmacy is a branch of pharmacy where pharmacists provide patient care that optimizes medication therapy and promotes health, wellness, and disease prevention.
- Clinical pharmacists are actively involved in patient care, unlike traditional pharmacists who mostly focus on dispensing medications.

Key Elements in Definition:

- Patient-centered practice
- Direct interaction with healthcare teams (doctors, nurses)
- Medication management and safety
- Evidence-based practice

Scope of Clinical Pharmacy

The scope of clinical pharmacy is broad and includes multiple roles and responsibilities:

1. Patient Care

- Providing advice to patients and healthcare professionals regarding drug therapy.

2. Therapeutic Drug Monitoring (TDM)

- Monitoring blood levels of specific drugs to ensure safety and efficacy.

3. Drug Interaction & ADR Management

- Identifying, managing, and preventing drug interactions and adverse drug reactions.

4. Pharmacovigilance

- Ensuring the ongoing safety of medicines by monitoring and reporting adverse drug reactions (ADRs).

5. Medication Review

- Systematic evaluation of a patient's medications to improve therapeutic outcomes.

6. Health Promotion

- Educating patients about disease prevention, healthy living, and proper drug use.

7. Drug Information Services

- Providing accurate and unbiased drug information to clinicians and patients.

8. Clinical Research

- Participation in clinical trials and evidence-based practice development.

Development of Clinical Pharmacy in India and Other Countries

In India

- Clinical Pharmacy in India is still in the developing stage but has made significant progress over the past two decades.

Initial Phase

- The concept began to gain attention in the early 2000s.
- Introduction of the Pharm.D program in 2008 marked a key milestone in professionalizing clinical pharmacy education and practice.

Regulatory Support

- The Pharmacy Council of India (PCI) regulates and promotes the clinical role of pharmacists.
- PCI supports curriculum reforms and professional development aligned with patient-centered care.

Challenges

- Low awareness among other healthcare professionals regarding the role of clinical pharmacists.
- Limited job opportunities in hospitals for Pharm.D and clinical pharmacy graduates.
- Underutilization of clinical pharmacists in direct patient care settings.

Recent Developments

- Clinical pharmacists played a role in medication management during the COVID-19 pandemic.
- Establishment of clinical pharmacist roles in tertiary care hospitals.
- Expansion of opportunities in areas like pharmacovigilance, medical writing, and regulatory affairs.

In Other Countries

- In developed nations such as the USA, UK, and Australia, clinical pharmacy is an established and integrated part of healthcare systems.

United States (USA)

- Clinical pharmacists are integral members of healthcare teams in hospitals, clinics, and community settings.
- Pharm.D is the standard entry-level qualification for clinical practice.

- Active roles in specialized clinics, including:
 - Oncology
 - Psychiatry
 - Cardiology
 - Infectious diseases

United Kingdom (UK)

- Clinical pharmacy services are provided in both hospital and primary care settings.
- Pharmacists can attain independent prescribing rights after completing accredited training programs.
- Involved in patient counseling, medication reconciliation, and chronic disease management.

Australia

- Clinical pharmacists are integrated into multidisciplinary healthcare teams.
- Participate in medication reviews, especially for:
 - Elderly patients
 - Chronic disease management
 - Contribute significantly in aged care facilities and community health programs

Technical definitions

Paediatrics

Definition:

- Paediatrics is the branch of medicine that deals with the medical care of infants, children, and adolescents, usually from birth up to 18 years of age.

Significance in Clinical Settings:

- **Drug Dosing:** Paediatric doses are based on body weight or surface area, not just age.
- **Formulations:** Requires palatable, liquid, or dispersible dosage forms.
- **Monitoring:** Children have immature organs, needing careful monitoring for adverse drug reactions (ADRs).
- **Immunization:** Essential in preventive care for this age group.

Geriatric

Definition:

- Geriatrics is the branch of medicine focused on healthcare of elderly people, typically aged 65 years and above.

Significance in Clinical Settings:

- **Polypharmacy:** Elderly patients often take multiple medications; risk of drug interactions increases.
- **Pharmacokinetics Changes:** Altered drug absorption, distribution, metabolism, and excretion due to aging.
- **Comorbidities:** Common in elderly (e.g., diabetes, hypertension, arthritis).
- **Dosing Adjustments:** Required to avoid toxicity due to declining liver/kidney function.

Antenatal Care (ANC)

Definition:

- Antenatal care refers to the routine health control of presumed healthy pregnant women without symptoms (screening) to detect diseases or complicating obstetric conditions.

Significance in Clinical Settings:

- **Preventive Care:** Ensures maternal and fetal health through scheduled visits.
- **Screening:** For conditions like gestational diabetes, anemia, infections, etc.
- **Supplementation:** Iron, folic acid, calcium, and sometimes multivitamins.
- **Patient Education:** On nutrition, hygiene, danger signs, and labor preparation.

Postnatal Care (PNC)

Definition:

- Postnatal care is the care given to the mother and her newborn immediately after the birth and up to 6 weeks.

Significance in Clinical Settings:

- **Monitoring:** Mother for hemorrhage, infection, depression; baby for jaundice, feeding, and weight gain.
- **Lactation Support:** Education on breastfeeding and neonatal care.
- **Immunization:** Start of vaccination schedule (e.g., BCG, OPV).
- **Family Planning:** Counseling and contraception guidance post-delivery.

Neonatology

Definition:

- A subspecialty of paediatrics focusing on the medical care of newborns, especially the ill or premature.

Significance:

- Neonatal Intensive Care Units (NICUs) manage critically ill neonates.
- Focus on respiratory support, infection control, and feeding.

Obstetrics

Definition:

- The field of medicine that deals with pregnancy, childbirth, and the postpartum period.

Significance:

- Obstetricians manage labor, delivery (normal or cesarean), and complications like preeclampsia or ectopic pregnancy.

Gynecology

Definition:

- Medical practice dealing with the health of the female reproductive system (uterus, ovaries, vagina).

Significance:

- Deals with menstruation issues, contraception, fertility, and menopause.
- Pharmacists often counsel on hormonal therapies or contraceptive use.

Daily activities of clinical pharmacists

Ward Round Participation

Definition:

- Participation of clinical pharmacists in multidisciplinary hospital ward rounds alongside physicians, nurses, and other healthcare providers.

Goal:

- To optimize pharmacotherapy.
- To detect and resolve drug-related problems (DRPs).
- To ensure safe, effective, and economical medication use.

Procedure:



FREE PREVIEW

[Click here to visit our website](#)

PHARMACY PREMIUM NOTES

Complete subject
and semesters are
available on
FirstHope app only.



[Scan or click here](#)

Click here to get the app



Available on Google Play

JOIN THE FIRSTHOPE COMMUNITY

Join our Telegram channel

Click here to join Telegram



[Scan or click here](#)

@FirstHopeNotes

Instagram

@firsthope.official

[Click here to follow >](#)

YouTube channel

FirstHope-Pharmacy / Live streams

[Click here to watch >](#)

WhatsApp channel

Follow FirstHope on WhatsApp

[Click here to join >](#)

FirstHope website

firsthopenotes.com

[Click here to visit >](#)

B.Pharm / D.Pharm / M.Pharm / Pharm.D

Preview notes. Complete subjects and semesters in the FirstHope app.