

**TEXTBOOK OF**  
**HOSPITAL AND**  
**COMMUNITY PHARMACY**  
**For Diploma in Pharmacy Second Year**

Education Regulation 2020 (New PCI Syllabus)

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## Blessings



Pharmacists are vital for the primary health care system all around the world. Diploma in Pharmacy is a program with basic level education about Pharmacy as per Pharmacy Council of India (PCI).

I am delighted to know that Probecell Press has come out with good concept of publishing bilingual books for pharmacy students based on new education regulation 2020 PCI syllabus.

I congratulate the authors and the entire team for their hard work and incorporation of book contents based on new syllabus.

I extend by best wishes to them and I hope that students will be benefited by the efforts put forward by the authors in the books.



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**First Lady Vice President, National APTI Central Zone**  
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## Message



Pharmacy courses in India are among the most popular courses. The study of pharmacy involves health sciences and pharmacists are the primary health professionals.

A good beginning makes a big difference.

“I’m happy for Probecell Press!” Books based on new PCI syllabus will be helpful for the students especially belonging to the rural areas.

My best wishes for all your efforts and doing excellence in the pharma profession.... All the best!



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## **Preface**

The textbook of Hospital and Clinical Pharmacy has been written for students of diploma in pharmacy second year students keeping in mind specific requirements of the Pharmacy Council of India (PCI), Education Regulation - 2020. The book is covering the entire syllabus as per new PCI norms including practicals.

This book containing twelve chapters including hospital pharmacy, different committees in hospital, supply chain, drug distribution, compounding in hospitals, radio pharmaceuticals, application of computers, clinical pharmacy, laboratory tests, poisoning, pharmacovigilance, medication errors and drug interactions.

I would like to acknowledge the invaluable contributions provided by the Probecell editorial team. I give great thanks to the graphic designers who were instrumental in preparing much of the artwork for this text. I would also like to acknowledge my colleagues and students for their willingness to serve as test subjects for many of the useful contents in this book. Finally, I would like to thank my teachers and parents for their guidance, support and encouragement throughout the process of completing this book.

30 April 2022  
Bhilai

**Gajendra Singh Thakur**  
**Shailesh Sharma**  
**Amit Chirania**  
**Harishankar Sharma**  
**Pritt Verma**



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# CHAPTER 1

## HOSPITAL PHARMACY

### HOSPITAL PHARMACY

Hospital pharmacy may be defined as that department of the hospital which deals with procurement, storage, compounding, dispensing, manufacturing, testing, packaging and distribution of drugs. It may be define as the practice of pharmacy within the hospital under the supervision of a professional pharmacist is known as hospital pharmacy. Hospital pharmacy is one of the most important department among several departments of a hospital.

### OBJECTIVES OF HOSPITAL PHARMACY:

- To professionalize the functioning of the pharmaceutical services in hospitals.
- To ensure availability of the required medication at an affordable cost at the required time.
- To maintain strict inventory of all items received and issued.
- To counsel the patient, medical staff, nurses and others involved in patient care on the use of drugs, possible side effects, toxicity, adverse effects, drug interactions etc.
- To serve as a source of information on drug utilization.
- To plan, organize and implement the policies of the pharmacy.
- To perform functions of management of material, purchase, storage of essential items.
- To provide training to various members of the patient team on various aspects of drug action, administration and usage.
- To engage in public health activities to improve the well-being of the population.
- To interact, cooperate and coordinate with various other departments of the hospital.
- To manufacture drugs, large/ small volume parenterals which are critical for use in patients.
- To participate in and implement the decisions of the pharmacy and therapeutics committee.
- To organize and participate in research programmes, educational programmes,

## **SCOPE AND FUNCTIONS OF HOSPITAL PHARMACY:**

- a. Forecast of demand
- b. Selection of reliable suppliers
- c. Prescribing specifications of the required medicament
- d. Manufacturing of sterile or non-sterile preparations
- e. Maintenance of manufacturing records
- f. Quality control of purchased or manufactured products
- g. Distribution of medicaments in the wards
- h. Dispensing of medicaments to out-patients
- i. Drug information source in hospitals
- j. Centre for drug utilization studies
- k. Implement recommendations of the pharmacy and therapeutic committee
- l. Patient counseling
- m. Maintaining liaison between medical, nursing and the patient.

### **Hospital pharmacy: National Scenario**

In hospitals the services regarding clinical pharmacy are of considerable value because the concerned clinical pharmacist serves as a guide to the physician for safe and rational use of drugs. In India, Clinical pharmacy services were initiated in 1992, when 2 Indian hospital pharmacists, B. Suresh and B.G. Nagavi, of Ooty and Mysore, respectively, sought out clinical pharmacist Frank May in Australia.

- During 1997, the hospitals in Mysore and Ooty were the sites of clinical pharmacy practice programs developed in collaboration with a senior clinical pharmacist from regional government hospital.
- Two model centers for the practice of clinical pharmacy were developed: the government sector model and the private sector model.
- Hospital pharmacist enables rational drug use by providing correct drug information including the proper utilization of the drugs utilized as drug therapy, along with all the precautions to be taken as indicated or asked by the pharmacist or the physician
- Hospital pharmacy also deals with ensuring safety and efficacy of the drugs after marketing.

### **Hospital pharmacy: International Scenario**

In 1951 hospital pharmacy was defined in America as a service under the direction of a pharmacist –

- (i) from which all medications are supplied;
- (ii) where special prescriptions are filled;