

CBS Confident Pharmacy Series

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CBS Confident Pharmacy Series

Fourth Edition

Fourth
Edition

Fourth Edition

Hospital and Clinical Pharmacy

Course Code: **ER20-25T**

for **Second Year Diploma in Pharmacy**

is strictly written according to the new syllabus framed by Pharmacy Council of India (PCI) as per ER-2020. This book is presented and published to meet the requirements of students of second year Diploma in Pharmacy (DPharm). The book, written in a simple and lucid language, attempts to demystify and simplify the basic concepts for the students of pharmacy for proper understanding of the subject and to get a sure success in the State Board Examinations.

Salient features of the book :

- All topics are described in an easy to understand language.
- Gives to-the-point answers.
- Covers all the requisite contents as per new syllabus.
- Shows success key in Board Examination.

This book, as well as **CBS Confident Pharmacy Series**, will be useful not only for the students and teachers but also for candidates desiring to attempt competitive examinations for job opportunities in pharmacy profession such as hospital pharmacists in PHCs, civil hospitals, etc.

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He is recipient of 'Best Participation Award' at national level IAPST conference held in 2011. Since 2008, he has been writing books in the field of pharmacy: So far he has published 11 popular titles, each title going to the third edition.

Now, as per PCI's new syllabus (ER-2020), he is in the process of completing fourth edition of 6 titles and bringing out fresh edition of 5 new titles according to the recent subjects introduced in the syllabus.

Hospital and Clinical Pharmacy

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for **Second Year Diploma in Pharmacy**

As per new syllabus prescribed by Pharmacy Council of India



VN Raje



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As per the latest syllabus prescribed by Pharmacy Council of India

Salient Features

- Lucid and easy language
- To the point answers
- Remembering the concepts in the simplest way
- Infusing confidence in the reader to appear in the board examinations

Other books by the same author under

CBS Confident Pharmacy Series

- *Social Pharmacy* for First Year Diploma in Pharmacy
- *Pharmaceutics*, 4/e for First Year Diploma in Pharmacy
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Pharmacy**

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Preface to the Fourth Edition

This edition of the book under the CBS Confident Pharmacy Series builds self-confidence in students which helps to get success in the examinations. The book has been written to meet the requirements of students of Diploma in Pharmacy (DPharm) in accordance with the new revised syllabus ER-2020 prescribed by Pharmacy Council of India.

This book is small and humble effort has been put in for compiling necessary information on the subject. An attempt has been made to demystify and simplify the basic concepts for the students of pharmacy and to enable them get an evergreen success in MSBTE examinations and all other qualifying examinations throughout India.

The salient features of the present book are:

- Lucid and easy language
- To the point answers
- Remembering facts in the simplest way
- Infusing confidence in the reader to appear in the board examinations.

Hence, the series is named

CBS Confident Pharmacy Series

I am confident that this book will be useful to both the students and the teachers of Diploma in Pharmacy as well as the candidates desiring to succeed in competitive examinations for better job opportunities in pharmacy profession such as hospital pharmacists in PHCs, civil hospitals, etc.

Vijay N Raje

to
my beloved family

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I am also thankful to Shri Satish Kumar Jain, Chairman and Managing Director, and Shri Shantanu Sarkar, Assistant General Manager, Mumbai Branch, CBS Publishers & Distributors Pvt Ltd, for their sustained efforts and keen interest in the publication of this book.

I wish all my beloved students to have a great success in the board examinations.

Vijay N Raje

Syllabus

(As per PCI New ER 2020)

Hospital and Clinical Pharmacy

Course Code: ER20-25T

75 Hours (3 Hours/week)

1. Hospital pharmacy

- Definition, scope, national and international scenario.
- Organisation structure.
- Professional responsibilities, qualification and experience requirements, job specifications, work load requirements and inter professional relationships.
- Good pharmacy practice (GPP) in hospital
- Hospital pharmacy standards (FIP basel statements, AHSP)

2. Different committees in the hospital

- Pharmacy and Therapeutics Committee—objectives, composition and functions.
- Hospital formulary—definition, procedure for development and use of hospital formulary.
- Infection Control Committee—role of pharmacist in preventing antimicrobial resistance.

3. Supply chain and inventory control

- Preparation of drug lists—high risk drugs, emergency drugs, Schedule H1 drugs, NDPS drugs, reserved antibiotics.
- Procedures of drug purchases—drug selection, short-term, long-term and tender/e-tender process, quotations, etc.
- Inventory control techniques—economic order quantity, reorder quantity level, inventory turnover, etc.
- Inventory management of central drugstore—storage conditions, methods of storage, distribution, maintaining cold chain, devices used for cold storage (refrigerator, ILR, walk-in-cold rooms).
- FEFO, FIFO methods.
- Expiry drug removal and their disposal methods, e.g. narcotics.
- Documentation—purchase and inventory.

4. Drug distribution

- Drug distribution (inpatients and outpatients): Definition, advantages and disadvantages of individual prescription order method, floor stock method, unit dose drug distribution method, drug basket method.
- Distribution of drugs to ICCU/ICU/NICU/emergency wards.
- Automated drug dispensing systems and devices.
- Distribution of narcotic and psychotropic substances and their storage.

5. **Compounding in hospitals:** Bulk compounding, IV admixture, services and incompatibilities, total parenteral nutrition.
6. **Radio pharmaceuticals:** Storage, dispensing and disposal of radio-pharmaceuticals.
7. Application of computers in hospital pharmacy practice, electronic health records softwares used in hospital pharmacy.
8. **Clinical pharmacy:** Definition, scope and development—in India and other countries technical definitions, common terminologies used in clinical settings and their significance as paediatrics, geriatric, anti-natal care, post-natal care, etc.
Daily activities of clinical pharmacist: Definition, goal and procedure of:
 - Ward round participation.
 - Treatment chart review.
 - Adverse drug reaction monitoring.
 - Drug information and poisons information.
 - Medication history.
 - Patient counseling.
 - Interprofessional collaboration.**Pharmaceutical care:** Definition, classification of drug related problems, principles and procedure to provide pharmaceutical care, medication therapy management, home medication review.
9. **Clinical laboratory tests** used in the evaluation of disease states—significance and interpretation of test results:
 - Haematological, liver function, renal function, thyroid function tests.
 - Tests associated with cardiac disorders.
 - Fluid and electrolyte balance.
 - Pulmonary function test.
10. **Poisoning: Types of poisoning:** Clinical manifestations and antidotes. Drugs and poison information centre and their services: Definition, requirements, information resources with examples, and their advantages and disadvantages.
11. **Pharmacovigilance**
 - Definition, aim and scope.
 - Overview of pharmacovigilance.
12. **Medication errors:** Definition, types, consequences, and strategies to minimize medication errors, LASA drugs and tall man lettering as per ISMP.
13. **Drug interactions:** Definition, types, clinical significance of drug interactions.

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