

Competency Based **PHARMACOLOGY** Manual for MBBS Students

is a workbook cum practical manual planned for the students of second year MBBS as per the new Competency Based Medical Education (CBME) guidelines adopted by NMC. All the topics which are in skill or communication domain and defined in the competency based curriculum (clinical pharmacy, experimental pharmacology and clinical pharmacology) have been included. These include demonstration of various dosage forms including special drug delivery systems, dose calculations in special situations, routes of drug administration through mannequins, computer assisting learning (CAL) for animal experiments, and various topics related to clinical pharmacology like drug promotion literature, p drug and essential medicine concept, ADR reporting and prescription writing, and auditing including communication to patients about prescription.

Salient Features

- Follows the new Competency Based Undergraduate Curriculum for the Indian Medical Graduate
- Specific learning objectives; suggested teaching-learning methods and assessment for each exercise
- Includes many illustrations related to topics discussed
- "Let's do this" section for students as assignment
- Exercises have been given as examples for certifiable competencies.

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is currently Professor, Department of Pharmacology, Geetanjali Medical College and Hospital, Udaipur, Rajasthan. He has teaching experience of about 14 years. He has to his credit 17 papers published in national and international journals, including four papers on medical education. Two undergraduate students have received scholarships under his guidance in short term studentship (STS) programme of Indian Council of Medical Research (ICMR). He was bestowed Nation Builder Award by Rotary Club of Udaipur in the field of education in 2018. He has been associated with medical education unit (MEU) as co-coordinator since 2016. He is member-secretary of human research ethics committee (HREC) and the member in causality assessment committee (CAC) under Pharmacovigilance Programme of India (PvPI), curriculum committee, academic cell and institutional research review board of GMCH, Udaipur, Rajasthan. He has organized three national conferences by Association for Medical Updates (AMUCON) as joint secretary and has also conducted various workshops on research methodology.



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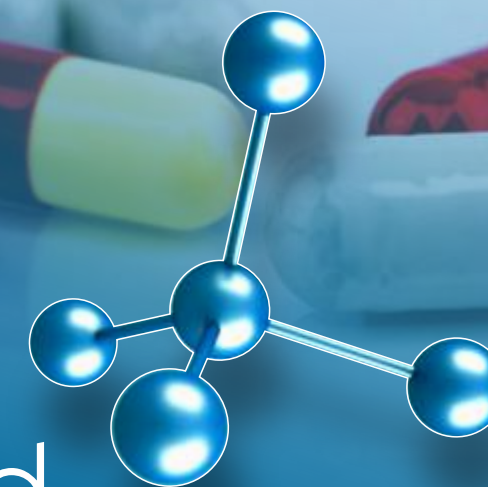


Yadav

Manual for
MBBS Students

Competency Based
PHARMACOLOGY

Competency Based **PHARMACOLOGY** Manual for MBBS Students



As per the latest
CBME Guidelines |
Competency Based Undergraduate Curriculum
for the Indian Medical Graduate

Arvind Yadav



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to
my beloved parents
Mrs Munni Devi and Mr Virendra Singh Yadav
and
my all respected teachers since childhood

Preface

Pharmacology is the science which deals with the drugs. Rational use of drugs/medicines is impossible without a proper understanding of their basic pharmacology, therefore this subject is the backbone of rational prescription in future for doctors. This manual is planned for the students of second MBBS as per new competency based medical education (CBME) of NMC. All the topics which are in skill or communication domain and already been defined by NMC in their curriculum (clinical pharmacy, experimental pharmacology and clinical pharmacology) are included in this manual. These include demonstration of various dosage forms including special drug delivery systems, dose calculations in special situations, routes of drugs administration through mannequins, computer assisting learning (CAL) for animal experiments, and various topics related to clinical pharmacology like drug promotion literature, p drug and essential medicine concept, ADR reporting and prescription writing and auditing including communication to patients about prescription.

Each exercise/practical in this manual has specific learning objectives related to that competency followed by teaching learning method and assessment. Relevant pictures/figures are used in the manual; not to promote them but to make topic more understanding and interesting for students who are visual learners.

Many places in medical colleges; much time are wasted in dictation of practical manual material compared to demonstration and as per new CBME curriculum, time for teaching pharmacology has also been reduced from 1.5 years to 1 year. So I thought to compile/write this manual as per new CBME based curriculum in pharmacology. I am not a big writer of book; I want to acknowledge the writer of many manuals and one specially running in Gujarat University since years, from which I have taken many important points because I considered them very much related to that topic and I also wish to acknowledge the authors of many theory and practical books running in India before implementation of CBME in pharmacology which helped me a lot.

Arvind Yadav

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I want to thank my Head of Department, Dr Sangita Gupta, Geetanjali Medical College & Hospital, Udaipur, for her constant help, and guidance throughout the process of this manual.

This practical manual would be difficult without the knowledge gained by me from my teachers of UG and PG times Dr Varsha Patel, Professor and Head, Department of Pharmacology, Dr MK Shah Medical College & Research Centre, Ahmedabad; Dr Mira Desai, Professor and Head, Department of Pharmacology, Nootan Medical College and Research Centre, Visnagar; and Dr Chetna Desai, Professor and Head, Department of Pharmacology, BJ Medical College, Ahmedabad, from whom I learnt a lot about these topics. I thank them from the bottom of my heart.

Words defy me in expressing my deep sense of debt and gratitude to my staff members Dr Meenu Pichholiya, Associate Professor, Department of Pharmacology, GMCH, Udaipur, and Dr Haiya Sheth, Scientist D - ICMR PDC, Department of Clinical Pharmacology, Seth G.S. Medical College & K.E.M. Hospital, Mumbai, who unrelentingly helped me during the writing of this manual.

Words are too frail to express my deep feelings to my respected parents Mrs Munni Devi and Mr Virendra Singh for their unending affection, constant encouragement and invaluable help without whose blessings it would not have been possible for the present work to see the light of the day.

No words can express my gratitude and thanks to my lovely wife Dr Savita Choudhary without whose encouragement and strength this manual would not have taken its present shape. I also want to thank my sweet little kids Avi and Aashvi for making my world brighter while doing this work.

Lastly I want to thank CBS publishing team without which my efforts would not have been possible.

I am also thankful to CBS Publishers & Distributors. I would like to put on record the sincere efforts of Mr YN Arjuna (Senior Vice President Publishing, Editorial and Publicity), and his team comprising Ms Ritu Chawla (GM Production), Mr Parmod Kumar (DTP operator) and Mr Rohan (Graphic designer), for bringing out the book in the present form.

Arvind Yadav

CERTIFICATE

This is to certify that Mr/Ms _____ has satisfactorily completed/not completed the practical work in Clinical Pharmacy, Experimental Pharmacology and Clinical Pharmacology during the period from _____ to _____

Place:

Date:

Signature of Head of the Department with Seal
(Department of Pharmacology)

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