Current Issues in PHARMACY

Qamar Uddin Ahmad



IIUM PRESS
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA



Editor

Qamar Uddin Ahmed, PhD

Kulliyyah of Pharmacy, International Islamic University Malaysia



Published by: IIUM Press International Islamic University Malaysia

First Edition, 2011 ©IIUM Press, IIUM

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without any prior written permission of the publisher.

Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Qamar Uddin Ahmed: Current Issues in Pharmacy

ISBN: 978-967-418-019-5

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM (Malaysian Scholarly Publishing Council)

Printed by:

IIUM PRINTING SDN. BHD. No. 1, Jalan Industri Batu Caves 1/3 Taman Perindustrian Batu Caves Batu Caves Centre Point 68100 Batu Caves Selangor Darul Ehsan

TABLE OF CONTENTS	Page	
PREFACE	3	
Chapter 1: Issues in Pharmacy Education		
Tariq Abdul Razak	5	
Chapter 2: Direct-to-Consumer Advertising in Malaysia: Skirting the Regulation	as?	
Syahiera Farhana Zakaria; Noordin Othman	15	
Chapter 3: Tobacco Control Education in Pharmacy: From Theory to Practice		
Mohamad Haniki Nik Mohamed; Saraswathi Simansalam	25	
Chapter 4: Pharmaceutical Promotion: The Theoretical Framework	of Regulation	
Noordin Othman; Agnes Vitry; Elizabeth E. Roughead	57	
Chapter 5: The Challenge of Pharmaceutical Promotion Regulation in Malaysia		
Noordin Othman; Agnes Vitry; Elizabeth E. Roughead	70	
Chapter 6: Innovations in the Delivery of Pharmaceutical Care		
Nurdiana Jamil; Syahiera Farhana Zakaria	88	
Chapter 7: Microencapsulation of Gentamicin into PLGA-Chitosan Matrices		
Anas Abdullah Hazim; Ahmad Fahmi Harun Ismail; Mohamed Awang; Farahida	h Mohamed 112	
Chapter 8: Process Analytical Technology Based Monitoring and Control of Cr	ystal Properties	
in Pharmaceutical Crystallisation Processes		
Mohd Rushdi Abu Bakar; Zoltan Karman Nagy	129	
Chapter 9: Pharmaceutical Application of Solid Dispersion Technology in Impro	oving Solubility	
of Poorly Soluble Drugs: A Review		
Uttam Kumar Mandal	156	

Chapter 10: Natural Surfactants for Pharmaceutical Emulsions	
Hadi, J. N; Norazian M. Hassan; Kausar Ahmad	178
Chapter 11: The Vascular Protective Effects of Polyphenols	
Juliana Md Jaffri	196
Chapter 12: The Stress and Free Radical towards Disease and Aging	
May Khin Soe	215
Chapter 13: Research and Development on Antidiabetic Herbs: Malaysia Perspective	
Abdul Razak Kasmuri	227
Chapter 14: In Vitro Activities of Malaysian Antidiabetic Plant Extracts on Adipocyte C	Cells
Muhammad Taher; Mohamed Zaffar Ali Mohamed Amiroudine; Deny Susanti	238
Chapter 15: Herbs as Antimicrobial Remedies and the Scientific Evidences Norazian M. Hassan; Qamar Uddin Ahmed	249
Chapter 16: Phytochemical Screening Expedition 2009: Drug Discovery From Nature	
Siti Zaiton, M. S; Norazian M. Hassan; Shamsul Khamis	274
Chapter 17: Pharmacology, Phytochemistry, and Toxicity of Rhazya Stricta DECNE	
Saifullah Khan; Farmanullah	285
Chapter 18: Effect of Different Growth Regulators on Shoot Proliferation of Garlic (All	'ium
sativum L.)	
Santi Rosana; Retno A. Budi Muljono; Ishak	305
Chapter 19: Metals in Herbal Formulations	
A. B. M. Helal Uddin	320
Chapter 20: Flavonoids: Future Pharmaceutical Agents	
Qamar Uddin Ahmed	333

CHAPTER 6

INNOVATIONS IN THE DELIVERY OF PHARMACEUTICAL CARE

Nurdiana Jamil; Syahiera Farhana Zakaria

Department of Pharmacy Practice, Kulliyyah of Pharmacy, International Islamic University

Malaysia, Kuantan, Pahang DM, Malaysia

Introduction

The concept of pharmaceutical care is the key foundation of modern-day patient-centered pharmacy services. Introduced in the late 1980's, the pharmaceutical care concept is the provision of medication-related therapy and for both preventive and treatment purposes with the ultimate purpose of improving patient's health status and quality of life (Helper & Strand, 1989; ASHP, 1993).

The key principle of pharmaceutical care involves the direct delivery of medicationrelated therapy and care for the attainment of specific pre-defined outcomes by a pharmacist that has full commitment and full acceptance of responsibility and accountability. The elements of pharmaceutical care are outlined in Table 1.

Implementation of pharmaceutical care often involves collaboration and cooperation between a pharmacist, the patient and other allied health professionals, in the planning, implementing, and monitoring a pharmacotherapeutic plan in order to impede or cure a disease, reduce symptoms of a disease and prevent a disease. The elemental concept of pharmaceutical care promotes patient input and empowerment in the formulation of care plan to the pharmacist and reciprocally the pharmacist commit towards the trust given hence in achieving the optimal