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The Epilepsy Prescriber's Guide to Antiepileptic Drugs

Second Edition

Philip N. Patsalos

FRCPath, PhD Professor of Clinical Pharmacology and Consultant Clinical Pharmacologist, UCL Institute of Neurology, The National Hospital for Neurology and Neurosurgery, London, and the Epilepsy Society, Chalfont St. Peter, UK

and

Blaise F. D. Bourgeois

MD Professor of Neurology, Harvard Medical School, William G. Lennox Chair in Pediatric Epilepsy, and Director, Division of Epilepsy and Clinical Neurophysiology, Children's Hospital, Boston, MA, USA



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PREFACE TO THE SECOND EDITION

The purpose of the first edition of the *Prescriber's Guide to Antiepileptic Drugs* was to help those involved in the treatment of patients with epilepsy to meet the challenge of having easy access to all relevant aspects of every antiepileptic medication currently available, including the newest ones. The *Prescriber's Guide* was very well received, and the feedback indicated that the stated goal was met at the time. Four years later, the authors now recognize the need for a new edition in order to continue to keep up with the original goal. Up-to-date new information was added accordingly, with no change in the easy to use format.

Two sections were added to the book in order to cover the new drugs that have become available in the meantime, perampanel and retigabine (called ezogabine in the United States). All sections on pharmacokinetic interactions, as well as the table at the end of the book summarizing all known pharmacokinetic interactions between antiepileptic drugs, have been extensively updated, and they represent a most comprehensive and up-to-date source of information on pharmacokinetic interactions involving antiepileptic drugs. Suggested pediatric dosage schedules have been added for several drugs. Additional adverse effects, as well as recommended precautions and monitoring, were added where applicable. The issue of bone health, as well as vitamin D monitoring and supplementation, was addressed for selected drugs. Information on teratogenicity reported in recent publications and pregnancy registries was incorporated in the sections on pregnancy. Finally, for these multiple upgrades, the relevant references were added to the list of suggested reading.

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INTRODUCTION

The purpose of *The Epilepsy Prescriber's Guide to Antiepileptic Drugs* (AEDs) is to provide practical and concise information so as to allow the optimum use of AEDs in clinical practice. This quick reference guide provides a wealth of invaluable information for use by all who treat patients with epilepsy, including neurologists, neurosurgeons, general physicians, those caring for the elderly, emergency medicine doctors, medical students and trainees at all levels, general practitioners, nurses and epilepsy nurse specialists, and practice pharmacists.

All of the drugs are presented in the same design format and in alphabetical order to facilitate rapid access to information. Specifically, each drug is divided into eight sections and each section is designated by a unique color background: therapeutics, pharmacokinetics, drug interaction profile, adverse effects, dosing and use, special populations, and the overall place of the drug in the treatment of epilepsy, followed by suggested reading of key references.

Section 1: Therapeutics

Covers the chemical name and structure; brand names in major countries; generics available; licensed indications as approved by the United States Food and Drug Administration (FDA) and the European Medicines Agency (EMA) or the United Kingdom Medicines and Healthcare products Regulatory Agency (MHRA); nonlicensed use; seizure types for which the drug is ineffective or contraindicated; mechanism of action; efficacy profile.

Section 2: Pharmacokinetics

Highlights the pharmacokinetic parameters relevant to each drug's clinical therapeutics and includes absorption and distribution, metabolism, and elimination parameters.

Section 3: Drug interaction profile

The interaction profile of each drug is divided into three major sections which include pharmacokinetic interactions, pharmacodynamic interactions, and interaction with hormonal contraception. The pharmacokinetic interaction section is further subdivided into interactions between AEDs and interactions between AEDs and non-AED drugs. Noninteracting drugs have been omitted.

Section 4: Adverse effects

Explains how the drug causes adverse effects; contains a list of common, lifethreatening, or dangerous adverse effects; an effect on weight is noted, and advice about what to do about adverse effects.

Section 5: Dosing and use

Provides the usual dosing range; available formulations; how to dose and dosing tips; how to withdraw drug; symptoms of overdose and how to manage; what tests and therapeutic drug monitoring are needed; other warnings and precautions; and when not to use.

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Section 6: Special populations

Gives information about use of the drugs in the presence of renal and hepatic impairments, and any precautions to be taken for treating children, the elderly, and pregnant and breast-feeding women.

Section 7: The overall place of the drug in the treatment of epilepsy This section provides an overview, based on the authors' opinions, as to where each AED can be placed in relation to the treatment of patients with epilepsy and summarizes the primary and secondary seizure types for which it shows efficacy, and finally highlights the potential advantages and disadvantages of each AED.

Section 8: Suggested reading

In this section, the authors highlight the key references that were used in compiling the information contained in each drug section and readers are advised to read these if more information is needed. Readers are also encouraged to consult standard comprehensive reference books on epilepsy and AED textbooks for more in-depth information.

At the back of the guide is an index by drug name. In addition, there is a list of abbreviations and a table highlighting the interactions that can occur between the different AEDs.