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978-0-521-75910-6 - Essential Pain Pharmacology: The Prescriber's Guide

Howard S. Smith and Marco Pappagallo

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## Prescriber's Guide

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# Essential Pain Pharmacology

## The Prescriber's Guide

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## Introduction

*Essential Pain Pharmacology: The Prescriber's Guide*, to be called hereafter the “*Pain Guide*,” gives practical information on the use of a wide array of drugs in the clinical practice of pain management. It shows the wealth of pain treatment options available, and gives guidance for the large percentage of patients who may not respond to standard treatments (so-called nonresponders).

It would be impossible to include all available information about any drug in a single work, and no attempt is made here to be comprehensive. The purpose of this guide is instead to integrate the art of managing the patient with pain with the science of pain pharmacology. That means including only essential but useful facts in order to keep things short. Unfortunately that also means excluding less critical facts as well as extraneous information, which may nevertheless be useful to the reader but would make the book too long and dilute the most important information. In deciding what to include and what to omit, the authors have drawn upon common sense and over 50 years of combined clinical experience with patients. They have also consulted with many experienced clinicians and analyzed the evidence from controlled clinical trials and regulatory filings with government agencies.

In addition to new and old drugs for chronic pain, the *Pain Guide* introduces the use of some nutraceuticals and medical food. When appropriate, these compounds can effectively be incorporated in the management of this patient population in order to ameliorate the patients' pain as well as improving their overall well-being. Guidance on the use of these compounds in combination with conventional pain therapies can be difficult to locate; wherever possible the authors have provided this information in the Drug Interactions text.

We hope that all physicians involved in the management of pain find it an invaluable resource in their daily practice.

In order to meet the evolving needs of the pain physician and to facilitate future updates of the *Pain Guide*, the opinions of readers are sincerely solicited. Feedback can be emailed to [feedback@neiglobal.com](mailto:feedback@neiglobal.com).

### How to use the *Pain Guide*

All of the selected drugs are presented in the same design format in order to facilitate rapid access to information. Specifically, each drug is broken down into five sections, each designated by a unique color background: • therapeutics, • adverse effects, • dosing and use, • special populations, and • the art of pain pharmacology, followed by key references.

**Therapeutics** covers the brand names in major countries; the class of drug; what it is commonly prescribed and approved for by the United States Food and Drug Administration (FDA); how the drug works; how long it takes to work; what to do if it works or if it doesn't work; the best augmenting combinations for partial response or treatment resistance; and the tests (if any) that are required.

**Adverse effects** explains how the drug causes side effects; gives a list of notable, life-threatening, or dangerous side effects; gives a specific rating for weight gain or sedation, and advice about how to handle side effects, including best augmenting agents for side effects.

**Dosing and use** gives the usual dosing range; dosage forms; how to dose and dosing tips; symptoms of overdose; long-term use; if habit forming, how to stop; pharmacokinetics; drug interactions; when not to use; and other warnings or precautions.

**Special populations** gives specific information about any possible renal, hepatic, and cardiac impairments, and any precautions to be taken for treating the elderly, children, adolescents, and pregnant and breast-feeding women.

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**The art of pain pharmacology** gives the authors' opinions on issues such as the potential advantages and disadvantages of any one drug, the primary target symptoms, and clinical pearls to get the best out of a drug.

At the back of the *Pain Guide* are three indices. The first is an index by drug name, giving both generic names (uncapitalized) and trade names (capitalized and followed by the generic name in parentheses). The second is an index of common uses for the generic drugs included in the guide and is organized by disorder/symptom. Agents that are approved by the FDA for a particular use are shown in bold. The third index is organized by drug class, and lists all the agents that fall within each particular class. In addition to these indices there is a list of abbreviations; FDA definitions for the Pregnancy Categories A, B, C, D, and X; and, finally, an index of the icons used in the guide.

Readers are encouraged to consult standard references<sup>1</sup> and comprehensive pain medicine and pharmacology textbooks for more in-depth information. They are also reminded that the art of pain pharmacology section is the opinion of the authors.

It is strongly advised that readers familiarize themselves with the standard use of these drugs before attempting any of the more exotic uses discussed, such as unusual drug combinations and doses. Reading about both drugs before augmenting one with the other is also strongly recommended. Today's pain physician should also regularly track blood pressure, weight, and body mass index for most of his or her patients. The dutiful pain physician will also check out the drug interactions of non-central-nervous-system (CNS) drugs with those that act in the CNS, including any prescribed by other clinicians.

Certain drugs may be for experts only or for physicians who have undergone a formal training in pain medicine. Off-label uses not approved by the FDA and inadequately studied doses or combinations of drugs may also be for the expert only, who can weigh risks and benefits in the presence of sometimes vague and conflicting evidence. Pregnant or nursing women, or people with two or more medical comorbidities, psychiatric illnesses, or a substance abuse disorder, may be suitable patients for the expert only. Controlled substances also require expertise. Use your best judgment as to your level of expertise and realize that we are all learning in this rapidly advancing field. The practice of pain medicine is often not so much a science as it is an art. It is important to stay within the standards of medical care for the field, and also within your personal comfort zone, while trying to help extremely ill and often difficult patients with medicines that can sometimes transform their lives and relieve their suffering.

Finally, the *Pain Guide* is intended to be genuinely helpful for pain practitioners by providing them with the mixture of facts and opinions selected by the authors. Ultimately, prescribing choices are the reader's responsibility. Every effort has been made in preparing this book to provide accurate and up-to-date information in accord with accepted standards and practice at the time of publication. Nevertheless, the pain pharmacology field is evolving rapidly and the authors and publisher make no warranties that the information contained herein is totally free from error, not least because clinical standards are constantly changing through research and regulation. Furthermore, the authors and publisher disclaim any responsibility for the continued currency of this information and disclaim all liability for any and all damages, including direct or consequential damages, resulting from the use of information contained in this book. Physicians recommending and patients using these drugs are strongly advised to pay careful attention to, and consult information provided by, the manufacturer.

## Note

1 For example, *Physician's Desk Reference* and *Martindale: The Complete Drug Reference*.

## Icons

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alpha-2 agonist



antiadrenergic



antiarrhythmic



anticholinergic



anticoagulant



antiemetic



antiepileptic drug



antihistamine



anti-inflammatory



antioxidant



antiparkinson agent



antiplatelet agent



antipsychotic



benzodiazepine



Best augmenting agents to add for partial response or treatment-resistance



beta-blocker



calcium channel blocker



cannabinoid agonist



capsaicin



chelating agent



cholinergic agonist, potassium channel blocker



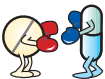
cholinesterase inhibitor



Clinical pearls of information based on the clinical expertise of the author



Dosing and other information specific to children and adolescents



Drug interactions that may occur



ergot



essential fatty acid



How the drug works, mechanism of action



immunomodulator



Information regarding use of the drug during pregnancy



Life-threatening or dangerous adverse effects



lidocaine



lithium



metal



micronutrient



monoamine oxidase inhibitor



*N*-methyl-D-aspartate antagonist



neuromuscular drug



neurotoxin



nonopioid analgesic



nonsteroidal anti-inflammatory



norepinephrine and dopamine reuptake inhibitor



nutraceutical



opioid



osmotic diuretic



pamidronate



polypeptide hormone



psychostimulant



**Sedation:** Degrees of sedation associated with the drug, with unusual signifying that sedation is not expected; not unusual signifying that sedation occurs in a significant minority; common signifying that many experience sedation and/or it can be significant in amount; and problematic signifying that sedation occurs frequently, can be significant in amount, and may be a health problem in some patients



selective serotonin reuptake inhibitor



serotonin and norepinephrine reuptake inhibitor



skeletal muscle relaxant



SNRI



Suggested reading



TCA



thrombolytic agent



Tips for dosing based on the clinical expertise of the author



tricyclic/tetracyclic antidepressant



triptan



Warnings and precautions regarding use of the drug



**Weight Gain:** Degrees of weight gain associated with the drug, with unusual signifying that weight gain is not expected; not unusual signifying that weight gain occurs in a significant minority; common signifying that many experience weight gain and/or it can be significant in amount; and problematic signifying that weight gain occurs frequently, can be significant in amount, and may be a health problem in some patients



vitamins



ziconotide

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