

Atlas of

DRUG REACTIONS

R. Douglas Collins

CHURCHILL LIVINGSTONE

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R. Douglas Collins, M.D.

Fellow of the American College of Physicians
Formerly, Associate Clinical Professor of Medicine
University of Florida College of Medicine
Gainesville, Florida
Formerly, Director, Internal Medicine Residency Program
Pensacola Foundation for Education
and Research, Inc. (P.E.P.)
Pensacola, Florida



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This book is dedicated to the family doctor in recognition of his many victories in the war against disease, which so often go unrecognized by anyone but himself and his patients.

Preface

Several times during the day — when prescribing an unfamiliar drug, when checking a possible drug reaction reported by a patient — it becomes necessary for most physicians to consult the standard references on drug reactions and interactions. These sources are comprehensive and therefore indispensable, but they are not designed for rapid reference.

There is a clear need for an alternative to these existing sources — for a quick reference presenting the adverse reactions to the common drugs in a simple, organized, and easily remembered fashion. This atlas was written to fulfill that need.

The text consists of individual discussions of the most important drugs in clinical use, arranged according to therapeutic category. Each discussion clearly and concisely presents adverse reactions, contraindications, precautions for use, and interactions with other drugs. The discussions are accompanied by color illustrations which graphically display the common and serious reactions to the drugs. Numerous tables compare the adverse reactions to the drugs in each therapeutic class, providing the clinician with appropriate alternatives. Finally, the book contains appendices listing drugs by trade name and generic name, which provide a quick reference to the identification of a drug and its important adverse reactions.

I wish to thank the people whose hard work made this book possible. Teri Langheld turned my miserable scribbling into a handsome typewritten manuscript. Lynn Kubasek transformed my rough sketches into beautifully finished illustrations. Gene Kearn and the staff of Churchill Livingstone turned the manuscript into a book that any author could be proud of.

I could not close this preface without mentioning how much the patience, love, and understanding of my lovely wife, Deborah, have meant to me throughout the creation of this book.

R. Douglas Collins, M.D., F.A.C.P.

Introduction

How is this book organized, and how may it be used most efficiently?

In the body of the text will be found separate discussions of drugs or groups of related drugs, organized into chapters by therapeutic category. Each discussion gives the various reactions associated with the drug or drugs, and also contraindications, precautions for use, and interactions with other drugs. If a reaction presented by a patient is not mentioned in the discussion, it is extremely unlikely to have been caused by the drug in question.

The discussions of the more common drugs and drug groups are accompanied by a color illustration displaying the more frequent or serious reactions. Although many of the less common drugs are not individually illustrated, the class of drug into which they fall usually is.

At the end of the text are two appendices which provide the physician with concise, basic information and help guide him to the relevant discussion in the text. The Generic Index lists drugs by generic name and gives their therapeutic category, under which they are discussed in the text. The Index of Drugs by Trade Name lists proprietary drugs, gives their generic ingredients, and for each ingredient gives the therapeutic category and the most significant adverse reactions. Thus a drug may be looked up by either generic or trade name.

In addition to the two appendices, there is a standard index at the back of the book which gives the pages on which a drug is discussed.

Not every drug is discussed in this book. However, for virtually any drug that is not individually discussed, the appendices will provide the therapeutic category so that a general idea of the significant reactions may be obtained.

Certain types of reactions are common to most drugs. Almost any drug ingested orally can cause a gastrointestinal reaction of some type—nausea, vomiting, diarrhea, constipation, etc. Almost any drug can cause a hypersensitivity reaction. Finally, individual patients can have a reaction of almost any sort, so the clinician must keep an open mind at all times.

Perhaps the most unique feature of this book is the **toxicity rating**. Each drug is rated low, medium, or high in toxicity according to the frequency, severity, and reversibility of its adverse reactions. Drugs such as sympathomimetics, antihistamines, and hypnotics are mostly rated low. At the other end of the spectrum are drugs such as the aminoglycosides, which cause ototoxicity and nephrotoxicity, and phenylbutazone and chloramphenicol, which cause agranulocytosis. In between are a host of drugs with a medium to high rating, which require careful consideration before they are prescribed. Some drugs have a moderate to high rating only when given parenterally.

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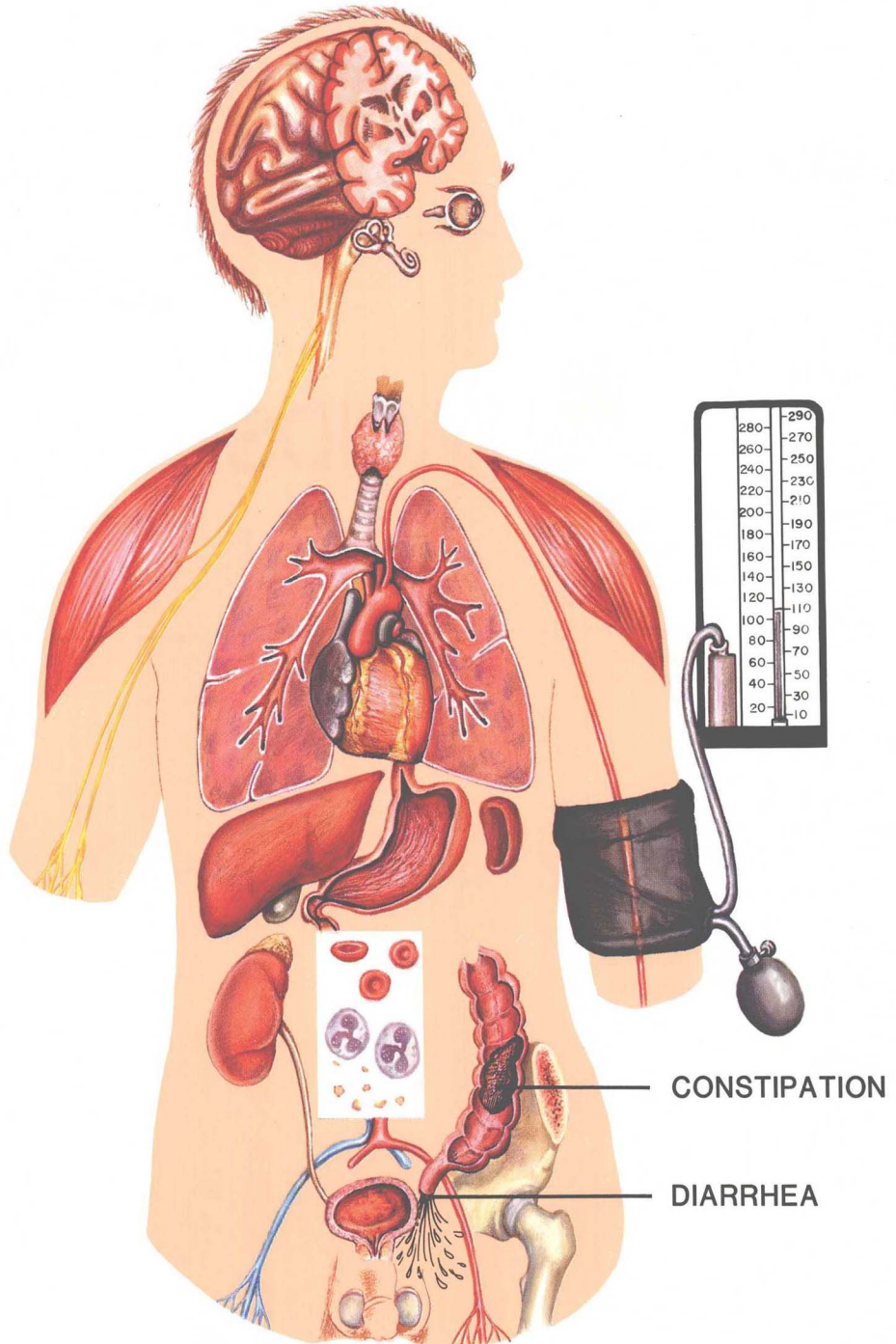
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Chapter 1

ANTACIDS

Antacids



Antacids

Principal Drugs

Generic Name	Representative Trade Names
Aluminum hydroxide	Amphojel
Combination with magnesium hydroxide	Aludrox, Maalox
Combination with magnesium trisilicate	Gaviscon
Combinations with magnesium hydroxide and simethicone	Gelusil, Mylanta
Magnesium hydroxide	Milk of Magnesia
Calcium carbonate (in combination with aluminum hydroxide and magnesium hydroxide)	Camalox
Sodium bicarbonate	baking soda

Toxicity Rating: Low

Adverse Reactions

Gastrointestinal The principal side effects of all antacids are diarrhea and constipation. In general, too much magnesium hydroxide will give a patient diarrhea, whereas too much aluminum hydroxide will produce constipation. Calcium carbonate is also usually constipating.

Other Too frequent ingestion of antacids may produce hypercalcemia and the milk-alkali syndrome characterized by metabolic alkalosis, renal calculi, and nephrocalcinosis. Calcium carbonate may cause acid rebound because it stimulates gastrin production.

Precautions

Patients with renal disease should be watched for hypermagnesemia manifested by tremor and cardiovascular symptoms. Aluminum hydroxide preparations may cause excessive phosphorus depletion.

Drug Interactions

Antacids may inhibit the absorption of tetracyclines, so these antibiotics should be given at least 1 hour before antacid administration. The alkalinization of gastric and renal pH alters the bioavailability of many drugs.

Treatment

Simple withdrawal of the drug is usually all that is necessary.

Chapter 2

ANTIANGINAL AGENTS

Antianginal Agents

Principal Types of Antianginal Agents

Nitrates

Calcium channel blockers

Dipyridamole

Beta blockers (see page 19)

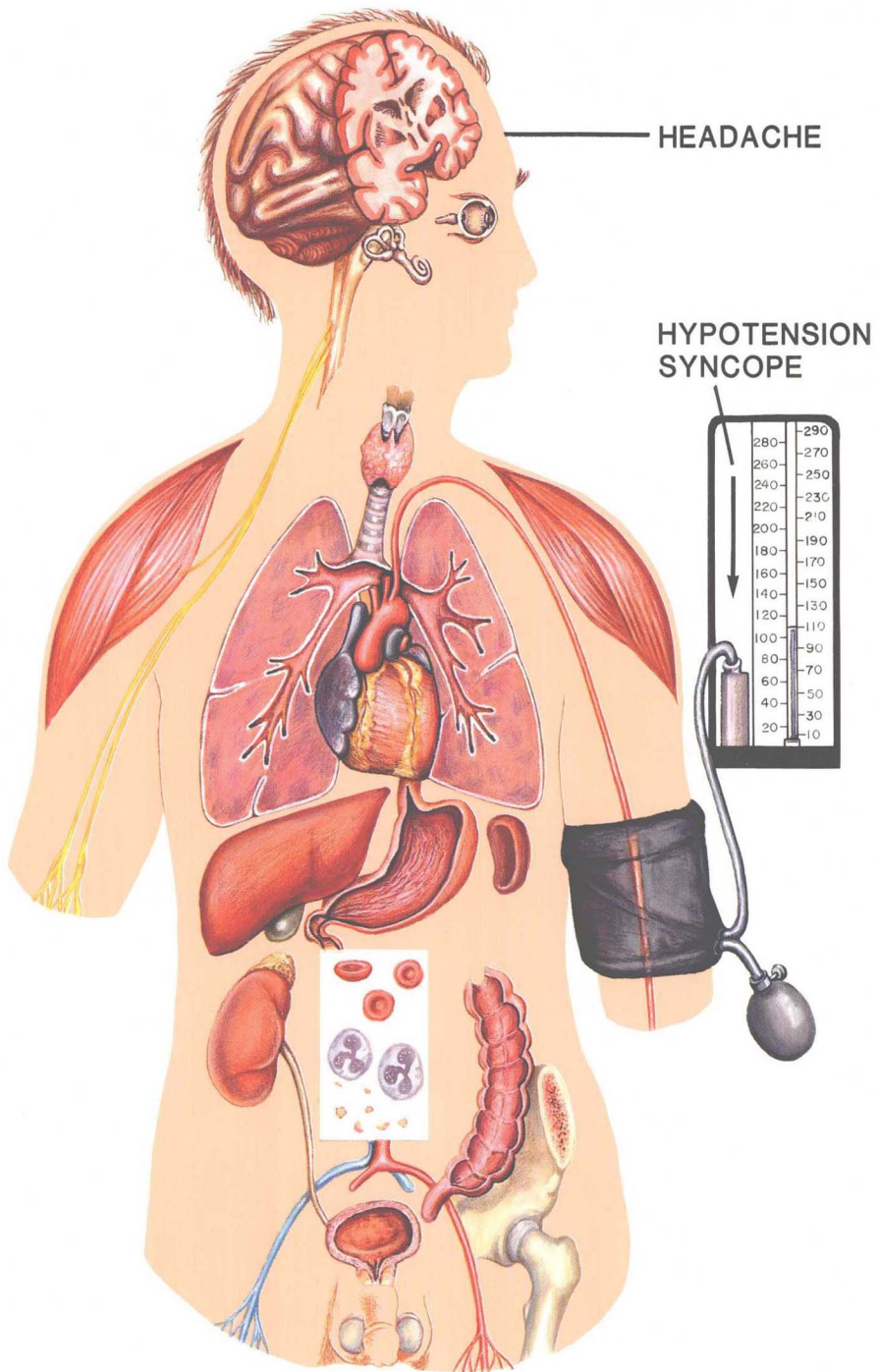
Introduction

All types of drugs in this group produce side effects by inducing hypotension. The calcium channel

blockers also have a negative inotropic effect on heart muscle and thus may induce heart failure and various types of heart block. For this reason, the calcium channel blockers deserve a higher toxicity rating.

Nitrates

Nitrates



Nitrates

Principal Drugs

Generic Name	Representative Trade Names
Nitroglycerin	Nitrostat
Nitroglycerin ointment	Nitrol Ointment, Nitrodisc, Transderm-Nitro
Isosorbide dinitrate	Isordil, Sorbitrate
Pentaerythritol tetranitrate	Peritrate

Toxicity Rating: Low

Other There may be acute nausea and vomiting, usually associated with the hypotension.

Adverse Reactions

Central Nervous System Headache is a common reaction, but is usually transient. There may be transient dizziness, weakness, and even syncope. Syncope is usually due to the associated postural hypotension. Alcohol may potentiate the syncopal attacks.

Skin Transient flushing, sweating, and more persistent rashes such as exfoliative dermatitis have occurred.

Contraindications

The only real contraindication is known hypersensitivity to the drug.

Treatment

Withdrawal of the drug and administration of oxygen and vasopressors are the major methods of treatment.