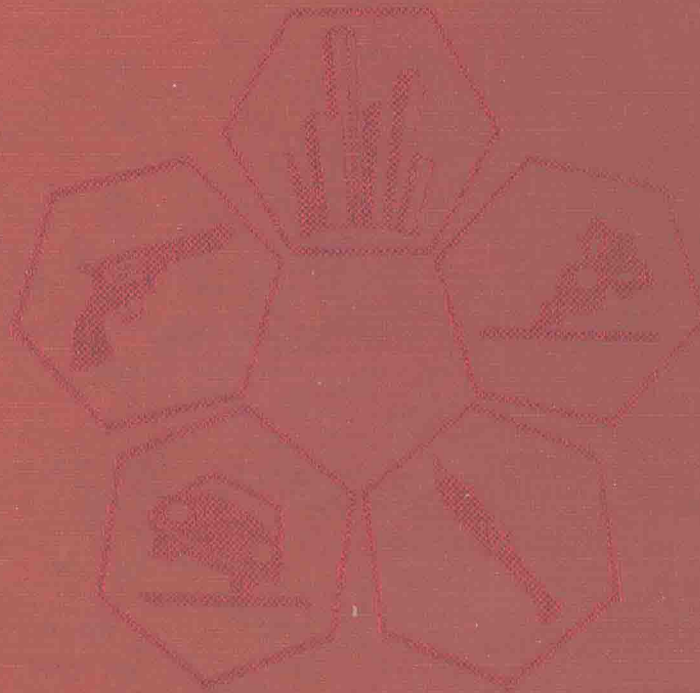


CRITICAL DECISIONS IN
TRAUMA



MOORE • EISEMAN • VAN WAY

CRITICAL DECISIONS IN **TRAUMA**

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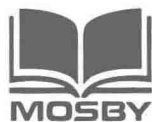
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with **497** illustrations

The C. V. Mosby Company

ST. LOUIS TORONTO 1984



A TRADITION OF PUBLISHING EXCELLENCE

Editor: Karen Berger
Assistant editor: Terry Van Schaik
Manuscript editor: Teri Merchant
Book design: Kay M. Kramer
Cover design: Suzanne Oberholtzer
Production: Judy England, Jeanne A. Gullledge

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Printed in the United States of America

The C.V. Mosby Company
11830 Westline Industrial Drive, St. Louis, Missouri 63146

Library of Congress Cataloging in Publication Data

Moore, Ernest Eugene.

Critical decisions in trauma.

Bibliography: p.

Includes index.

1. Traumatology—Decision making. 2. Wounds and injuries—Treatment. I. Eiseman, Ben. II. Van Way, Charles W. III. Title.

RD93.M56 1984 617'.1 82-22944

ISBN 0-8016-3499-7

VT/CB/N 9 8 7 6 5 4 3 2 01/B/091

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To
Sarah, Mary, and Margery

PREFACE

There must be a good reason to justify writing still another book on trauma to join the many others that have appeared during the past 10 years. At one extreme are the glorified first aid manuals; at the other, the highly complex, scientific monographs of primary interest only in highly specialized trauma centers. But most injured patients are cared for in hospitals that are not trauma centers by clinicians who are not full-time trauma specialists. It is for these physicians that this book is written. Many are clinical surgeons who as residents were once perhaps familiar with management of the injured, but because of their clinical practice, now have lost the fine edge. Most emergency departments, other than in large municipal hospitals, are staffed by emergency medical specialists or by primary physicians or internists who are there as a part of their hospital staff responsibilities or as a supplement to their regular practice. Even those familiar with emergency medicine may be relatively inexperienced in the management of the severely injured, who comprise less than 5% of their practice.

The basic format for this book revolves around a decision tree, or algorithm. An algorithm differs from a decision tree only in that it indicates the usual or preferred solution to the problem. Such diagrams are becoming increasingly familiar to clinicians, as they have been for several decades for other professionals. They identify decision points, list the data that will lead to a solution, and put in visual form the diagnostic and therapeutic clinical alternatives for a solution. At best, they also provide probabilities for good and bad with each alternative. Such a seemingly complicated exercise in logic is no more than what a physician does intuitively dozens of times each day when solving a clinical problem, writing an order, or performing a procedure. Comparing the probable benefits and detriments with the value of each course of action helps choose the solution that is of most benefit to the patient.

It is particularly appropriate that such methods of diagnostic and therapeutic presentation be available to the trauma specialist, for whom decision points often occur suddenly and with little opportunity for reflection and self-education. So too are these decisions

usually irreversible and definitive. They are often the epitome of what is called decision making under uncertainty. Characteristically there is lack of all the wished-for evidence when the decision must be made. Traumatology is a high-risk specialty. Unless the physician is prepared in advance and has a methodical approach to its challenges, the patients may suffer when time comes for important clinical decisions.

There is increasing acceptance that algorithms are an effective way to teach clinical medicine. Decision trees remind the clinician of where to anticipate decision points and what options are then available. There is no pretense that they alone contain all the information necessary for problem solving, but they form a convenient skeleton on which students of whatever sophistication can appropriately hang bits and pieces of knowledge and experience. When totally fleshed out, such a full-bodied data base forms the basis for wise decisions. No one is so naive as to believe that clinical medicine is an exact science; in even the simplest clinical decision involving the injured, there is a need for judgment. All of the data are seldom available. Many factors affect the decisions, and often the wise clinician can sense factors that are not yet clear enough to record or quantify.








This book is dedicated to the principle that decision making in traumatology, if properly analyzed, can be made cerebral, not simply visceral, and that the injured patient will be benefited thereby.

Ernest Eugene Moore
Ben Eiseman
Charles W. Van Way III

A WORD OF INSTRUCTION

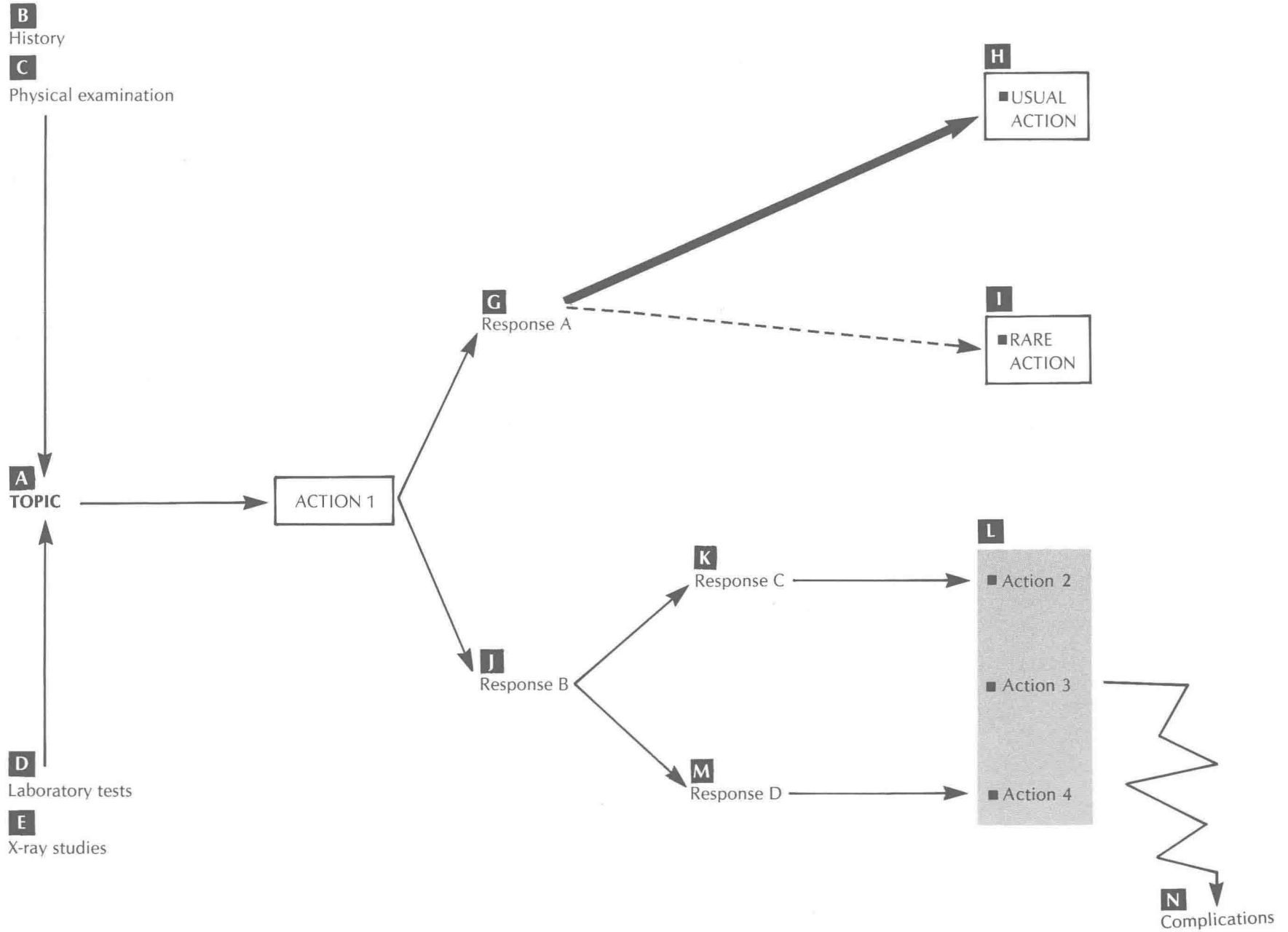
Because this book has a unique format, a word of instruction may help readers use it more effectively as they seek guidance in the management of the injured. Each chapter contains an algorithm, or decision tree, which summarizes the central theme of the chapter. The algorithm provides an overview of critical decision points, management options, and anticipated outcome. Points for discussion or clarification are lettered and correspond to the narrative text. The text is located on left-hand pages and the algorithm on the right to allow the reader easy reference without the constant need to turn pages back and forth. For this reason, the algorithm is sometimes repeated in the chapter.

The algorithms have a standard form, which is shown on the next page. The flow diagram, in general, follows the course of clinical management. His-

tory, physical examination, and laboratory studies are on the left, followed by actual procedures. Therapeutic actions are capitalized and enclosed in a box . Procedures common to a number of decision arms are indicated in a gray box . A thin arrow  indicates a normal course of action. A heavy arrow  signifies a frequent or highly advisable course of action. A broken line  denotes the exception. A zigzag line  points to complications. A triangle  represents triage.

Techniques frequently used in the care of the injured are detailed in the appendix. These procedures, when cited in the narrative, are listed at the beginning of the chapter along with the page number where they can be located in the appendix.

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