

**SURGICAL**

**RECALL**

2ND EDITION

**LORNE H. BLACKBOURNE**

**Williams & Wilkins**  
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# SURGICAL RECALL

## 2nd Edition

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## Dedication

This manual is dedicated to the memory of Leslie E. Rudolf, Professor of Surgery and Vice-Chairman of the Department of Surgery. Dr. Rudolf was born on November 12, 1927 in New Rochelle, New York. He served in the U.S. Army Counter-intelligence Corps in Europe after World War II. He graduated from Union College in 1951 and attended Cornell Medical College, where he graduated in 1955. He then entered his surgical residency at Peter Brigham Hospital in Boston, Massachusetts and completed his residency there serving as Chief Resident Surgeon in 1961.

Dr. Rudolf came to Charlottesville, Virginia as an Assistant Professor of Surgery in 1963. He rapidly rose through the ranks, becoming Professor of Surgery and Vice-Chairman of the Department in 1974 and a Markle Scholar in Academic Medicine from 1966 until 1971. His research interests included organ and tissue transplantation and preservation. Dr. Rudolf was instrumental in initiating the Kidney Transplant Program at the University of Virginia Health Sciences Center. His active involvement in service to the Charlottesville community is particularly exemplified by his early work with the Charlottesville/Albemarle Rescue Squad, and received the Governor's Citation for the Commonwealth of Virginia Emergency Medical Services in 1980.

His colleagues at the University of Virginia Health Sciences Center, including faculty and residents, recognized his keen interests in teaching medical students, evaluating and teaching residents, and helping the young surgical faculty. He took a serious interest in medical student education, and he would have strongly approved of this teaching manual, affectionately known as the "Rudolf" guide, as an extension of ward rounds and textbook reading.

In addition to his distinguished academic accomplishments, Dr. Rudolf was a talented person with many diverse scholarly pursuits and hobbies. His advice and counsel on topics ranging from Chinese cooking to orchid raising were sought by a wide spectrum of friends and admirers.

This manual is a logical extension of Dr. Rudolf's interests in teaching. No one book, operation, or set of rounds can begin to answer all questions of surgical disease processes; however, in a constellation of learning endeavors, this effort would certainly have pleased him.

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# Foreword

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*Surgical Recall* represents the culmination of several years' effort by Lorne Blackbourne and his friends, who began the project when they were third-year medical students. Lorne, who recently completed his residency in General Surgery at the University of Virginia, has involved other surgical residents and medical students to provide annual updates and revisions. This reflects the interest, enthusiasm, and true dedication to learning and teaching that permeates the medical school classes and surgical residencies in our institution. It is an honor, privilege, and a continuing stimulus to work in the midst of this group of dedicated young people. I congratulate all the students and residents involved in this project and also acknowledge the leadership of the surgical faculty. The professor's ultimate satisfaction occurs when all the learners assume ownership of learning and teaching.

This book encompasses the essential information in general surgery and surgical specialties usually imparted to students in our surgical clerkship and reviewed and developed further in electives. Developed from the learner's standpoint, the text includes fundamental information such as a description of the diseases, signs, symptoms, essentials of pathophysiology, treatments, and possible outcomes. The unique format of this study guide exploits the Socratic method by employing a list of questions or problems posed along the left side of the page with answers and responses on the right. In addition, the guide includes numerous practical tips to students and junior residents to facilitate comprehensive and effective management of patients. This material is essential for students in the core course of surgery and for those taking senior electives.

In this second edition, the authors have added several new chapters and have expanded the existing chapters for a fuller and more complete coverage of all subjects, including the new subjects. We hope you find this expanded version of this work stimulating and easy to use.

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# Preface

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*Surgical Recall* began as a source of surgical facts during my Surgery Clerkship when I was a third-year medical student at the University of Virginia. My goal has been to provide concise information that every third-year surgical student should know, placed in a “rapid fire” two-column format.

The format of *Surgical Recall* is conducive to the recall of basic surgical facts because it relies upon repetition and positive feedback. As one repeats the question-and-answer format, one gains success.

We have dedicated our work to the living memory of Professor Leslie Rudolf. It is our hope that those who knew Dr. Rudolf will remember him and those who did not will ask.

Lorne H. Blackbourne, M.D.  
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P.S. We would like to hear from you if you have any corrections, acronyms, classic ward or operating room questions (all contributors will be credited). You can reach me on E-mail in care of Williams & Wilkins at [dlong@wwilkins.com](mailto:dlong@wwilkins.com).

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# Section I

Overview and  
Background Surgical  
Information



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**USING THE STUDY GUIDE**

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This study guide was written to accompany the surgical clerkship. It has evolved over the years through student feedback and continued updating. In this regard, we welcome any feedback (both positive and negative) or suggestions for improvement. The objective of the guide is to provide a rapid overview of common surgical topics, but keep in mind that it is **NOT written as an all-encompassing source (i.e., you will have to consult major textbooks to round out the information in this guide)**. The guide is organized in a self-study/quiz format. By covering the information/answers on the right with the bookmark, you can attempt to answer the questions on the left to assess your understanding of the information. Keep the guide with you at all times, and when you have even a few spare minutes (e.g., between cases) hammer out a page or at least a few questions. Many students read this book as a primer before the clerkship even begins!

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**STUDYING FOR THE SURGERY CLERKSHIP**

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Your study objectives in surgery should include the following four points:

1. OR question-and-answer periods
2. Ward questioning
3. Oral exam
4. Written exam

The optimal plan of action would include daily reading in a text, such as the Lawrence *Essentials of General Surgery*, anatomy review prior to each OR case, and *Surgical Recall*. But remember, this guide helps you recall basic facts about surgical topics. Reading should be done daily! The average general surgery clerkship is 6 weeks, or 42 days. If you read 10 pages a day, that is 420 pages, or the entire Lawrence text! As you read the text, take notes.

To facilitate the learning of a surgical topic, first break down each topic into the following categories and, in turn, master each category:

1. What is it?
2. Incidence
3. Risk factors
4. Signs and symptoms
5. Lab and radiologic tests
6. Diagnostic criteria
7. Differential diagnoses
8. Medical and surgical treatment
9. Postoperative care

10. Complications

11. Stages and prognosis

Granted, it is hard to read after a full day in the OR. For a change, go to sleep right away and wake up a few hours early the next day and read **before** going to the hospital. It sounds crazy, but it does work.

## Appearance

### Why is your appearance so important?

The patient sees only the wound dressing, the skin closure, and you. You can wear whatever you want, but **you best look clean.**

## What the Perfect Surgical Student Carries in Her/His Coat:

*Surgical Recall* (of course)

Stethoscope

Penlight

Scissors

Minibook on medications (e.g., trade names, doses)

Tape/4×4s

Sutures to practice tying

Pen/notepad/small notebook to write down pearls

Notebook or clipboard with patient's data (always write down chores with a box next to them so you can check off the box when the chore is completed)

Small calculator

List of commonly used telephone numbers (e.g., radiology)

## The Perfect Preparation for Rounds

Interview your patient (e.g., problems, pain, wishes)

Talk with your patient's nurse ("Were there any events during the last shift?")

Examine patient (e.g., cor/pulm/abd/**wound**)

Record vitals (e.g.,  $T_{\max}$ )

Record input (e.g., IVF, PO)

Record output (e.g., urine, drains)

Check labs

Check microbiology (e.g., culture reports, Gram stains)

Check x-rays

Check pathology reports

Check allied health updates (e.g., PT, OT)

Read chart

Check medication (don't forget  $H_2$  blocker in the hyperalimentation)

Check nutrition

Always check with the intern for chores, updates, insider information, **before** rounds



## Presenting on Rounds

Your presentation on rounds should be like an iceberg. State important points about your patient (the tip of the iceberg visible above the ocean), but know **everything** else about your patient that your chief might ask about (that part of the iceberg under the ocean). Always include:

Name

Postoperative day s/p—procedure

A concise overall assessment of how the patient is doing

Vital signs/temp status/antibiotics day

Change in physical exam

Output—urine/drains

Any complaints (not yours—the patient's)

Plan

Your presentation should be concise, with good eye contact (you should not simply read from a clipboard). The intangible element of confidence cannot be overemphasized; but if you do not know the answer to a question about a patient, the correct response should be “I do not know, but I will find out.” Never lie or hedge on an answer because it will only serve to make the remainder of your surgical rotation less than desirable. Furthermore, do your best to be enthusiastic and motivated. **Never, ever whine.** And remember to be a **team player**. Never make your fellow students look bad! Residents pick up on this immediately and will slam you.

## The Perfect Surgery Student

Never whines

Never pimps his/her residents or fellow students (or attendings)

Never complains

Is never hungry, thirsty, or tired

Is always enthusiastic

Loves to do scut work and can never get enough

Never makes a fellow student look bad

Is always clean (a patient sees only you and the wound dressing)

Is never late

Smiles a lot and laughs a lot

Makes things happen

Is not a “know it all”

Never corrects anyone **during** rounds unless it will affect patient care

Makes the chief/intern/resident look good at all times, if at all possible

**Knows more about her/his patients than anyone else**

Loves the OR

Never wants to leave the hospital

Takes correction, direction, and instruction very well

Says “Sir” and “Ma’am” to the scrub nurses (and to the attending, unless corrected)

Never asks questions he can look up for himself