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Handbook

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The MD Anderson Surgical Oncology Handbook

Fifth Edition

Barry W. Feig
C. Denise Ching

THE UNIVERSITY OF TEXAS

MD Anderson
~~Cancer~~ Center



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The MD Anderson Surgical Oncology Handbook

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To our dear friends and families, for their support,
enthusiasm, and patience through our many years
of training and continued long hours spent
in the care of patients with cancer.

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Welcome to the fifth edition of *The MD Anderson Surgical Oncology Handbook*! Since the publication of the first edition, the field of surgical oncology, the surgical care of patients with cancer, has grown from an avocation practiced by a few committed surgeons, usually trained in general surgery, to a defined and vigorous specialty with its own subspecialties, including those of breast, colorectal, melanoma, sarcoma, and hepatobiliary surgery.

Since the first edition of *The Handbook*, there have been major advances that have transformed the field. These have included advances in surgical techniques that have minimized patient morbidity and at the same time allowed refinement in surgical indications. Such advances have included the introduction of sentinel lymph node biopsy, especially for patients with melanoma and breast cancer; and advances in minimally invasive surgery, initially in the staging and palliative treatment of patients with gastrointestinal malignancies but now established as a standard of care for selected patients with various early-stage tumors, including colon cancer and adrenal tumors. Advances have also included technical innovations, including in liver, pancreatic, peritoneal, soft tissue, and reconstructive surgery that have allowed surgical care to be extended to patients not previously considered surgical candidates, including patients with bilobar liver tumors, those with involvement of major abdominal vasculature, and carcinomatosis. Advances in imaging, including the introduction of PET/CT as well as high-resolution CT and MRI, have allowed for more accurate preoperative staging, facilitating surgical treatment planning and permitting a more selective approach to surgical care of patients with various cancers. Major progress in our understanding of the molecular biology and the natural history of many solid tumors, through investigations often led by surgical oncologists, have resulted in a much deeper and more profound understanding of the mechanisms responsible for cancer incidence and progression. These advances have led not just to more accurate staging of patients with these cancers but to more accurate selection of patients for surgical treatment, and in some cases more effective and less toxic systemic therapies. Finally, integration of cancer-specific diagnostic

treatment and outcomes data with information on patient quality of life, socioeconomic factors, and on costs and side effects of therapy, through the disciplines of health services, outcomes, and disparities research, are of increasing importance in obtaining the best possible result in individual patients while at the same time minimizing toxicity, waste, and overall cost.

The current edition of *The Handbook* provides an overview of current care of patients with cancer diagnoses commonly evaluated and treated by surgical oncologists and in doing so continues to align such care with the underlying philosophy of the Department of Surgical Oncology at MD Anderson: multidisciplinary, cooperative care is the ideal way to manage patients with cancer. Such care begins with an understanding of the underlying tumor biology and natural history of the disease and includes technical excellence in the delivery of indicated surgical treatment. It also demands integration of essential information from the available literature on currently preferred treatment modalities and emphasizes appropriate inclusion of adjunctive specialty care, including medical oncology, radiation oncology, interventional radiology, palliative care, pain management, physical therapy, nutritional support, social services, and nursing.

I am confident that you will find the current edition of *The Handbook* useful, whether you are a medical student on a surgical rotation, a surgical resident, a surgical oncology fellow, or an interested specialist in a related discipline. Especially for those of you early in your training, I hope that your exposure to the exciting and deeply rewarding field of surgical oncology through your surgical rotations and this handbook will interest some of you in pursuing the surgical care of patients with cancer as a career. I am delighted to be able to introduce the current edition of *The Handbook* to you and honored to have been a small part of it since the first edition. The dynamic nature of the field of surgical oncology will demand that we continue to revise and update its contents; it is exciting to know that some of you reading this will contribute to future editions!

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The concept for the *MD Anderson Surgical Oncology Handbook* was originally conceived 16 years ago with the original objective being an attempt to document the philosophies and practices of the Department of Surgical Oncology at the MD Anderson Cancer Center. Since that time, through four editions, the book has become a practical guide for residents, fellows, and attending staff, to the established surgical oncology principles for treating cancer as it involves each organ system in the body. The purpose of the book is to outline management approaches based on our experience with surgical oncology problems at MD Anderson.

Consistent with the original concept, this book is written by current and former surgical oncology fellows at MD Anderson. Although the target audience for the first edition was surgical house staff and surgical oncology trainees, we found that there was a significantly wider appeal for the book across multiple disciplines and at various levels of training and experience. The handbook continues to maintain this appeal, despite various subsequent publications of similar intent, within other specialties. The authors represent various disciplines within oncology and training programs, and they have spent at least 2 years at the MD Anderson Cancer Center studying only surgical oncology. The diversity of authors allows us to present the current opinions and practices of the MD Anderson Department of Surgical Oncology, along with other opinions and treatment options practiced in a wider range of surgical training programs. By maintaining the emphasis of the book from the perspective of the surgical oncology fellows, we hope to prevent the book from becoming overly dogmatic in our medical opinions and practices.

This handbook is not meant to encompass all aspects of oncology in minute detail. Rather, it is an attempt to address commonly encountered as well as controversial issues in surgical oncology. While other authors present their opinions and approaches as firmly established, we have tried to point out controversies and show alternative approaches to these problems besides our own.