Preface to the First Edition

In contrast to its inauspicious origins in the 1960s when treatment outcomes were poor, hematopoietic stem cell transplantation (HSCT) has become a major life-sustaining treatment for hematopoietic cancers and marrow failure syndromes. HSCT is now fully integrated into the overall disease management strategy and is a preferred treatment option for many of these disorders. Today, HSCT is often performed early in the course of a disease rather than as a treatment of "last resort." Indeed, HSCT offers survival benefits to tens of thousands of patients annually. The reasons for this remarkable change are attributable to the seminal advances made in many areas, including our understanding of immunology, technologic advances in HLA typing, stem cell graft processing and cryopreservation, enumeration and characterization of progenitor and immune cell populations in the stem cell graft, refinement of transfusion practices, introduction of new antimicrobial agents, development of safer conditioning regimens, and progress in development of new immunologic drugs and combination regimens. Clinical trials that evaluate and compare one management strategy with another to identify optimal approaches have increased our ability to guide more patients safely past complications that years ago were frequent life-threatening obstacles.

With the wider application of HSCT and improved outcomes, more and more HSCT patients and survivors are being seen by medical practitioners of all specialties. Trainees require exposure to the fundamentals of HSCT to allow them to be able to successfully manage the HSCT patients that they will later encounter in their practice. The field of HSCT is growing, transplant practices are changing, and the team of clinical practitioners and trainees involved in HSCT care is expanding. Thus, there is a need for an up-to-date resource on the practical aspects of clinical evaluation and management of the transplant patient and the donor.

The aim of this *HSCT Handbook* is to broadly cover the major topics of patient and donor evaluation, conditioning regimens, procedures for stem cell graft collection, characterization and use of stem cells, and recognition and management strategies for major acute and late complications. The *Handbook's* emphasis is on providing key concepts that underlie the topics and providing practical information to the reader.

The topics the text includes are: indications for transplantation; donor and patient evaluation; conditioning regimens; collection, processing, and characterization of stem cell products; management of immunosuppressive therapy; evaluation and management of the myriad complications encountered; suggestions for supportive care; performance of the most common procedures; and aspects of follow-up care.

There are excellent and authoritative HSCT textbooks already available. This *Handbook*, however, is not intended to plow the same ground. Rather, this *Handbook* is meant to serve as a convenient pocket or bedside reference for common issues seen in HSCT.

Intended to be the "go to" reference for fellows and residents, the *Handbook* should function as well for various trainees (oncology, hematology, transfusion medicine, pathology, internal medicine, pediatrics, and intensivists) and staff, including mid-level practitioners, pharmacists, stem cell technologists, and nurses. This is an excellent reference for hematology/oncology fellowship directors to provide to their trainees.

The *Handbook* provides easy-to-find practical tips on how to evaluate clinical syndromes and management tips for optimal patient care, mixed with explanations of the basic science that drives the clinical practice. Often, there is more than one way to approach a problem, and we asked each author to strike a balance of presenting the various options with pros and cons of each.

Although each chapter has a bibliography of selected readings, the reference list is not intended to be exhaustive. Although practices may vary from one transplant center to another, the authors were asked to provide general approaches rather than a single in-house management approach.

The authors were chosen because of their expertise in HSCT practice. All are recognized internationally as excellent practitioners on their topic. However, the chapters offer advice based wherever possible from evidence-based research. The authors were asked to provide some explanation of the biology or pathophysiology that underlies key principles or syndromes, but not to prepare in-depth treatises. We wished to emphasize practical issues in the text as to patient evaluation and management, so that the book would fit in the pocket of a house officer who might use it as a reference, and to present the material in as user-friendly a fashion as possible.

The indications and dosages of drugs and drug regimens have been garnered from the medical literature and conform to common practices in the HSCT community.

The medications may not necessarily conform to specific approval from a specific governmental regulatory agency. Moreover, the audience is intended to be international, and regulatory status may vary from country to country and some drugs may not be available in some countries. Every effort has been made to ensure that the drug dosages are accurate. However, medical practitioners should check relevant medical literature and product information provided by manufacturers to ensure that the correct dose and administration procedures are followed. Moreover, practices change, as new knowledge is gained, and one should use good clinical judgment in selection of relevant regimens and calculation of dose for indi-

vidual patients. There may be variances from institution to institution and from physician to physician. Thus, practices at individual institutions may, with good reason, differ from those advised in these pages. HSCT is a rapidly changing field. Thus, one should be mindful that some drugs and regimens may become outmoded.

The editors are anxious to learn how you use this *Handbook* and how to make future editions more valuable and user-friendly. We also want to know if there are topics that should be added. We hope you find this clinical *Handbook* practical for the day-to-day management of your HSCT patients.

John R. Wingard, MD

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