

### Text on Randomized Clinical Trials in Pediatric Oncology

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#### EVIDENCE-BASED PEDIATRIC ONCOLOGY, SECOND EDITION

Edited by Ross Pinkerton, A. G. Shankar, Katherine Matthay, 576 pp., Wiley, Blackwell Publishing, 2007. ISBN: 978-1-4051-4268-7.

*Evidence-Based Pediatric Oncology* presents a compilation of results from randomized trials conducted in children with cancer. The editors, Pinkerton, Shankar, and Matthay, have targeted the text to investigators designing future clinical trials and to pediatric oncologists early in their career. The three major sections of the textbook, Solid Tumors, Leukemia, and Supportive Care in Pediatric Oncology, are structured in a relatively similar fashion. A commentary of variable length precedes each set of randomized clinical trial summations. The summations are in essence extended abstracts that also include the relevant trial design schema, key result tables, and figures. Any major deficiency in the original reporting of results is succinctly stated. Each trial has its objectives and conclusions clearly delineated.

There are two major strengths to the text. First, it indeed provides a handy compilation of randomized studies to assist those authoring background sections to clinical protocols, and to help minimize the likelihood that past results are ignored when designing new trials. Second, many of the commentaries provide insight into the impact of such trials. The most valuable commentaries are those that place studies into their historical context, as was done when discussing the trials evaluating the role of chemotherapy in the treatment of children with osteosarcoma. For young investigators, it is difficult to fathom the need to determine the

value of adjuvant or neoadjuvant chemotherapy in this disease, even though this remained a contentious issue as recently as 25 years ago.

Overall, the book is difficult to navigate, taking a rather tedious approach to presenting often copious amounts of clinical research data. The Solid Tumors section is organized exclusively by diagnosis. Studies are labeled numerically (i.e., Study 1, Study 2) in chronologic order of study conduct time. This approach makes finding the evidence base for why certain components of today's therapy are considered the standard of care exceedingly difficult to find, let alone synthesize.

The Leukemia section does attempt a more problem-oriented approach, albeit with mixed results. The subsection on acute myeloid leukemias focuses on the role of differing induction therapies, the impact of autologous bone marrow transplantation, and the value of maintenance therapy. The subsection on acute lymphoblastic leukemia is more disjointed, focusing on the role of steroids and asparaginases, then focusing on the roles of central nervous system preventive therapy and continuing (maintenance) therapy. The synthesis of evidence-based practice is perhaps most focused in the brief final section, Supportive Care in Pediatric Oncology, which discusses the use of hematopoietic colony-stimulating factors and strategies to prevent anthracycline-induced cardiac damage. However, the weakness in this section is that pediatric oncologists should not, and usually do not, carry out investigations in a vacuum; there are indeed key trials conducted in adult patients that help inform us.

*Evidence-Based Pediatric Oncology* may be of value to

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those developing new protocols, as several of the key studies were published in an era that predates online availability. Further, the text points to key areas of improvement, if not in study conduct, then certainly in study reporting. A shift in balance toward commentaries and away from data available from other sources would have been welcome. Although some of the commentaries contain biases that not all would share, they provide context for these studies, a context that is most valuable to anyone seeking to understand the history of pediatric cancer clinical research.

Perhaps the real value of this text is in its global lessons for today's generation of pediatric oncologists. De-

spite the remarkable progress in the curability of childhood cancer over the past 50 years, our randomized trials are too few and have variable, and occasionally significant, flaws. Moreover, there is a tendency for history to repeat itself, as we seemingly ask only minor variations of the same question. The clinical trials with greatest impact are those that attempt to define a treatment principle, and not to simply compare regimen A with regimen B. And of the myriad of trials contained in this text, a reflection of the history of pediatric cancer clinical research, only a small minority has defined principles that carry forward to today.

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