

## “Textbook of Clinical Trials, Second Edition”

David Machin, Simon Day, and Sylvan Green, Editors, 2006, 763 pages, John Wiley & Sons, \$400.00

Review by Norman M. Goldfarb

“Textbook of Clinical Trials, Second Edition” is not your typical textbook of clinical trials. Numerous other books discuss clinical trial design, conduct, analysis and regulation without regard for therapeutic area. This book takes the opposite strategy: it is all about therapeutic area. If you write protocols – or want to understand their design – and have room on your bookshelf for two books, this should be one of them. If you are an investigator and want to demonstrate your sophistication at study qualification visits, mention a few subtle points from the text. Alternatively, the book may help you negotiate screen failure fees and avoid protocols that are doomed to failure.

This book has been selected for  
[The First Clinical Research Bookshelf](#)  
Essential reading for clinical research professionals

The book includes 40 chapters, 32 of which focus on clinical research in therapeutic areas such as gastrointestinal cancers, acute stroke, respiratory medicine, infectious diseases, ophthalmology, anxiety disorders, general surgery, and wound healing. Each chapter reviews the medical background, current treatments, experimental designs, and clinical trial methods and issues specific to the diseases.

For example, the chapter on respiratory medicine discusses three diseases: asthma, rhinitis and COPD. The primary measure of lung function in asthma trials is Forced Expiratory Volume (FEV). Results are dependent on the subject’s effort. FEV<sub>1</sub> is relatively immune to effort effects because it requires the subject to cooperate for only one second. Peak expiratory flow (PEF) is even better in this respect because it normally occurs within 0.1 seconds. Because respiratory performance normally varies in a daily cycle, study tests must be performed at the same time each day. Because one of asthma’s numerous triggers is anxiety, there is a significant placebo effect if the subject believes that participating in the study will relieve symptoms that themselves cause anxiety.

Diary studies of maintenance asthma medications normally provide a short-acting  $\beta_2$ -agonist rescue medication for acute episodes (asthma attacks). Subjects receiving the less-effective study treatment will use the rescue medication relatively frequently. Measurements after taking the rescue medication will therefore show better pulmonary function, biasing the data in favor of the less-effective treatment. Alternatively, ignoring data from the bad days introduces a similar bias, also favoring the less effective treatment. The best solution to this problem is to hope the diary entries are accurate so the bias can be measured.

The book is available in bookstores.

### Reviewer

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