

"Economic Evaluation in Clinical Trials"

Henry A. Glick, Jalpa A. Doshi, Seema S. Sonnard and Daniel Polsky, 2007, 244 pages, Oxford University Press, \$45.00

Review by Norman M. Goldfarb

"Economic Evaluation in Clinical Trials" is a straightforward guide to a not-so-straightforward topic. The book illustrates the difference between "hard" sciences like chemistry with "one answer" and "soft" sciences like economics with "many answers." It is essential reading for anyone who wants to know (a) how to find a good, maybe even the right, answer, (b) how to find the answer that meets the marketing department's needs, and (c) how to find the holes in the answer you have been given to get a product into your formulary. Economic evaluation in clinical trials is clearly an area where knowledge is power.

This book has been selected for
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Essential reading for clinical research professionals

Comparing the costs and benefits of two treatments for the same indication is relatively straightforward, but comparing treatments across multiple indications requires a common measure, usually Quality Adjusted Life Years (QALYs). It is relatively easy to estimate the number of years of life a therapy will yield, but much more difficult to adjust the value of those years for their quality. For example, how many days of perfect health would you trade for a year of life with insomnia? With diabetes? With progressive dementia? With a 1% chance of dying from a side effect? Health economists have developed various tools for assessing these trade-offs. Different tools yield different results, so the choice of tools can have a major impact on coverage decisions for a new therapy.

The book covers the statistics, for example: "As we have shown, simple exponentiation of the mean of the logs yields the geometric mean of cost, which in the presence of nonzero variance in cost is a downward-biased estimate of the arithmetic mean." However, enough of the content is intelligible to civilians to make the book worthwhile reading for anyone with pertinent interests.

The book includes 11 chapters:

- Introduction
- Designing economic evaluations in clinical trials
- Valuing medical service use
- Assessing quality-adjusted life years
- Analyzing cost
- Analyzing censored cost
- Comparing cost and effect
- Understanding sampling uncertainty: the concepts
- Sampling uncertainty: calculation, sample size and power, and decision criteria
- Evaluating transferability of the results from trials
- Relevance of trial-based economic analyses

The book is available at bookstores.

Reviewer

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