

Pragmatic/Practical Randomized Controlled Trials

Editor's Note: The Center for Medical Technology Policy in collaboration with Merrick Zwarenstein from the Sunnybrook Health Sciences Centre in Toronto, Canada and Andy Oxman from Norway recently convened a two-day workshop to discuss whether pragmatic trials are a definable subset of randomized clinical trials, what design elements characterize these trials, and how best to design, conduct, report, and interpret these studies. An overview of this workshop including significant themes that emerged from the group discussions as well as the outcomes of this meeting are discussed below.

When and where was the meeting held?

- The Pragmatic Randomized Control Trial Workshop was held on March 31st through April 2nd, 2008 at the University of Toronto Conference Centre.
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What were the objectives of the workshop?

The objectives of this workshop were to contribute towards improvements in the number, quality and use of pragmatic trials through

- Developing a shared understanding of what pragmatic trials are, when they should be used, and how to effectively and efficiently design, conduct and report them
 - Sharing practical experience with the design, implementation and use of pragmatic trials
 - Sharing experience with initiatives to improve the supply and use of well designed and conducted pragmatic trials
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Who were the participants?

The participants in this workshop were methodologists, clinicians, and policy-makers from a variety of organizations including the World Health Organization, the National Institute of Health and Clinical Excellence in the United Kingdom, the Johns Hopkins School of Medicine in the United States, the Medical Research Council of South Africa, and the Institute for Clinical Evaluative Science in Ontario, Canada. The hope was that by bringing a variety of different stakeholders to the table, the group would be able to reach a shared understanding of what elements define a pragmatic trial and how these trials can be used to inform healthcare decision making.

Workshop Overview

The first part of the meeting was dedicated to reviewing recent developments related to definitions, concepts and methods for pragmatic trials. The second part of the meeting focused on practical experience with the design, implementation, and use of pragmatic trials. The first session of this part of the meeting focused on initiatives that may help to improve the supply, quality or use of pragmatic trials. The second and final session focused on summarizing key messages as well as developing plans for disseminating these messages and undertaking further work aimed at improving the supply and use of well designed and conducted pragmatic trials.

What were the major themes discussed at the workshop?

- Pragmatic clinical trials are those prospective trials designed to address the evidence needs of healthcare decision makers (payers, patients, clinicians, and policy-makers). At the opposite end of the spectrum are explanatory trials which are designed to address scientific questions.
 - Pragmatic and explanatory are not binary measurements. Although there is no hard and fast line that distinguishes a pragmatic trial from an explanatory trial, there are a number of elements that contribute to defining how pragmatic or explanatory a study is. PRECIS is a tool that identifies ten of these elements.
 - Different decision makers have different evidentiary needs: payers make population based decisions whereas patients and physicians make decisions on an individual basis.
 - There is an unmet need for pragmatic clinical trials because of misaligned incentives: Patients are interested in access, physicians do not like to admit uncertainty, product manufacturers are only interested in meeting regulatory requirements, and not all decision makers are concerned with the same gaps in evidence. Even when there is consensus, there is often disagreement on how to address these gaps.
 - There is a need to develop methods for horizon scanning to identify important evidence gaps and a reproducible method for prioritizing these evidence gaps as well as a reliable funding stream to support pragmatic trials.
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Where do we go from here?

- Publish a journal article that reflects the discussion of the meeting and policy issues surrounding the implementation of pragmatic trials.
 - Continue discussion around the definition and key features of pragmatic research. Questions that need to be addressed include: Is randomization a requirement in order for research to be pragmatic or are there other research designs that are sufficiently robust and capable of addressing question of importance to decision makers? How can we address the methodological and financial barriers to conducting pragmatic research? And how can we create a prioritized research agenda that identifies the key questions of importance to decision makers?
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Published Journal Articles Resulting from this Workshop

Thorpe KE et al. A Proposal for Graphing Randomized Controlled Trials within the Pragmatic-Explanatory Continuum: PRECIS. *Journal of Clinical Epidemiology*. (Under Review)

Zwarenstein M, Treweek S, Gagnier J et al. Improving the Reporting of Pragmatic Trials: An Extension of the CONSORT Statement. *British Medical Journal* 2008; 337: 1223-1226.

Further Reading about Pragmatic Clinical Trials

G Kolata. New Arena for Testing of Drugs: Real World. *New York Times*, Nov 24, 2008. www.nytimes.com/2008/11/25/health/research/25trials.html?_r=1

D Schwartz & J Lellouch. Explanatory and pragmatic attitudes in trials. *J Chron Dis* 1967.

S Tunis et al. Practical clinical trials: increasing the value of clinical research for decision making in clinical and health policy. *JAMA*. 2003 Sep 24;290(12):1624-32

P Karanicolas et al. A new framework for designing and interpreting randomized trials *in press*