

## COCHRANE COLUMN

# Summary of Findings Tables: Presenting the Main Findings of Cochrane Complementary and Alternative Medicine-related Reviews in a Transparent and Simple Tabular Format

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For more information about the Cochrane CAM Field, visit [http://www.compmed.umm.edu/cochrane\\_about.asp](http://www.compmed.umm.edu/cochrane_about.asp)

The systematic review is widely accepted as the most reliable and objective method for evaluating the effects of healthcare interventions, including complementary and alternative medicine (CAM) therapies. Systematic reviews use explicit, transparent, and well-documented methods to find, evaluate, and synthesize the best available research studies related to a specific research question. Systematic reviews of healthcare treatment typically have focused on randomized controlled trials (RCTs) because RCTs are widely regarded as the study design providing the most reliable estimates of a healthcare treatment's effects. Systematic reviewers aim to evaluate and appraise relevant RCTs using objective and reproducible methods to provide an unbiased assessment of the evidence for a given therapy. Systematic reviews sometimes include a meta-analysis, the quantitative combining (pooling) of results from similar but separate RCTs to obtain an overall effect estimate.

Up-to-date systematic reviews are of critical importance to researchers, healthcare providers, and policymakers. Systematic reviews can help researchers pinpoint where knowledge gaps exist and thereby help in the design and conduct of new RCTs. The systematic review serves to ensure that a proposed new RCT is relevant, necessary, and guided by earlier RCTs. Indeed, to ensure that future RCTs are optimally designed based on what has been learned from previous RCTs,<sup>1,2</sup> some funding agencies such as the Canadian Institutes of Health Research<sup>3</sup> and the UK Medical Research Council<sup>4</sup> and medical journals including the *Lancet*<sup>5</sup> now require evidence from a recent systematic review before funding or publishing a new RCT. Amidst the vast, almost limitless number of research questions that remain to be addressed in CAM and the limited financial support available to study CAM therapies, which unlike pharmaceuticals and medical devices typically cannot be patented by industry, it is particularly important that CAM investigators plan RCTs in the context of what is already known on a topic as summarized in a systematic review. Healthcare providers must also keep current with research findings or they risk adverse consequences for patient care, including the continued recommendation and use of therapies proven ineffective or even harmful by RCTs, as well as a delay in the uptake of treatments proven to be effective.<sup>6</sup>

Similarly, policymakers need access to such reviews (and their summaries) as a way of summarizing evidence for the development of guidelines and as a factor in decision making.<sup>7</sup>

The Cochrane Collaboration, founded in 1992, is an internationally renowned nonprofit initiative dedicated to preparing, maintaining, and promoting the accessibility of systematic reviews to improve healthcare for the world's population. The Cochrane Collaboration currently involves more than 28000 contributors from 110 countries,<sup>8</sup> most of whom are volunteer researchers who prepare the rigorous and high-impact Cochrane reviews as part of their academic responsibilities. As of Issue 10, 2011, the *Cochrane Database of Systematic Reviews* includes 4791 Cochrane systematic reviews, 488 of which relate to CAM.

Cochrane reviews often are considered the gold standard of systematic reviews because they undergo a strict and meticulous peer review process, are regularly updated, and are largely free from commercial conflicts of interest. Indeed, the reputation of the Cochrane Collaboration as an unbiased source of evidence rests upon organizational policies forbidding sponsorship of Cochrane reviews and their derivative products, Cochrane review authors, and Cochrane entities by any commercial source, particularly the pharmaceutical industry and medical device manufacturers.<sup>9</sup>

The full Cochrane reviews, however, are sometimes not accessible to healthcare providers, consumers, and policymakers because of the length and complexity of the full reviews. Shorter summaries of Cochrane reviews are therefore necessary to bridge the gap in stakeholders' accessibility to evidence-based information about CAM. To address this need, the Cochrane Collaboration has developed an innovative way to disseminate the overall findings of Cochrane reviews as Summary of Findings (SoF) tables and Plain Language Summaries. SoF tables focus on the major comparison from a Cochrane review (eg, acupuncture vs sham acupuncture) and display in a tabular format the findings for each outcome (eg, pain, function) for this comparison, as well as an evaluation of the overall strength and quality of the evidence for each outcome. Plain Language Summaries are prepared based on the data from the SoF tables.

The development and refinement of an approach

for disseminating the bottom-line findings of Cochrane Reviews have been underway within the Cochrane Collaboration since 2000. The final SoF format that has now been endorsed by the Cochrane Collaboration is based on the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach for rating the quality of evidence. In addition to its endorsement by the Cochrane Collaboration, the GRADE approach has been adopted by more than 20 other organizations, including the World Health Organization, the American College of Physicians, the UK National Institute for Health and Clinical Excellence, UpToDate, and the *British Medical Journal*. The CAM researchers and providers who read *Global Advances in Health and Medicine* may find it helpful to become familiar with the GRADE approach and the resultant SoF tables. In GRADEing the quality of RCT evidence for the SoF tables, Cochrane reviewers consider several factors, including within-study risk of bias (methodological quality), directness of evidence, heterogeneity, precision of effect estimates, and risk of publication bias.<sup>10</sup>

To prepare the SoF tables and Plain Language Summaries of CAM-related Cochrane reviews, the Cochrane CAM Field has collaborated with the Nordic Cochrane Centre. The preparation of each SoF table is time and labor intensive and generally requires 3 to 4 days of an experienced methodologist's time. Some of the work involves deciding which outcomes to present for which time points and evaluating the strength and quality of the evidence for the outcomes. For each SoF table, the authors of the Cochrane Review are contacted to request clarification on any points that are not understood in the Cochrane Review and also to request their review of the SoF table.

Beginning with this issue, *Global Advances in Health and Medicine* and the Cochrane CAM Field launch the first in a series of columns called "Cochrane CAM Reviews: Summary of Findings." The first column, on page 100 of this issue, summarizes the Cochrane review "Horse chestnut seed extract for chronic venous insufficiency." In that column, Underland et al present the Plain Language Summary, which provides a general introduction to the treatment—in this case, horse chestnut seed extract (HCSE)—and the condition, chronic venous insufficiency, as well as a narrative review of the effectiveness of HCSE for chronic venous insufficiency. The narrative summary is followed by an SoF table that quantitatively documents the effects of HCSE relative to a placebo on 6 different health outcomes relevant to chronic venous insufficiency, as well as the number of participants/studies and a GRADEing of the quality of the evidence for each of the 6 outcomes. The summary in this first column suggests that the inexpensive and relatively safe HCSE has the potential to improve chronic venous insufficiency while also pointing out limitations in the quality of the existing RCT evidence.

## REFERENCES

- Clarke M, Alderson P, Chalmers I. Discussion sections in reports of controlled trials published in general medical journals. *JAMA*. 2002 Jun 5;287(12):2799-801.
- Clarke M, Hopewell S, Chalmers I. Clinical trials should begin and end with systematic reviews of relevant evidence: 12 years and waiting. *Lancet*. 2010 Jul 3;376(9734):20-1.
- Straus S, Moher D. Registering systematic reviews. *CMAJ*. 2010 Jan 12;182(1):13-4.
- Chalmers I. Using systematic reviews and registers of ongoing trials for scientific and ethical trial design, monitoring, and reporting. In: Egger M, Davey SG, Altman DG, editors. *Systematic reviews in health care: meta-analysis in context*. London: BMJ Books; 2001. p. 429-43.
- Young C, Horton R. Putting clinical trials into context. *Lancet*. 2005 Jul 9-15;366(9480):107-8.
- Lau J, Antman EM, Jimenez-Silva J, Kupelnick B, Mosteller F, Chalmers TC. Cumulative meta-analysis of therapeutic trials for myocardial infarction. *N Engl J Med*. 1992 Jul 23;327(4):248-54.
- Dickersin K, Manheimer E. The Cochrane Collaboration: evaluation of health care and services using systematic reviews of the results of randomized controlled trials. *Clin Obstet Gynecol*. 1998 Jun;41(2):315-31.
- Allen C, Richmond K. The Cochrane Collaboration: International activity within Cochrane Review Groups in the first decade of the twenty-first century. *J Evid Based Med*. 2011 January 27 [Epub ahead of print].
- Commercial sponsorship and the Cochrane Collaboration. The Cochrane Collaboration website. <http://www.cochrane.org/about-us/commercial-sponsorship>. Accessed January 13, 2012.
- Schünemann HJ, Oxman AD, Vist GE, et al. Chapter 12: Interpreting results and drawing conclusions. In: Higgins JP, Green S, editors. *Cochrane handbook for systematic reviews of interventions*. Version 5.1.0 [updated March 2011; cited 2012 Jan 13]. Available from: <http://www.cochrane-handbook.org/>.

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