

# EPOC

Effective Practice and Organisation of Care Group

Edition 14 March 2003

# Visit our New Web Site!

November 2002 marked the launch of the new EPOC web site at http://www.epoc.uottawa.ca.

Bookmark your browsers to have quick and easy access to our web site and resources.

With the move from Aberdeen to Ottawa revisions to the EPOC web site were necessary. The new editorial base has endeavoured to create a web site that will be useful to reviewers, prospective reviewers and to anyone interested in the Cochrane Collaboration and the work of EPOC.

Potential reviewers will be able to find information about EPOC, the scope and the editorial team. They can also find the reviews and protocols published in the Cochrane Library to date, as well as link to the abstracts and consumer summaries. Potential reviewers can now register a title for a review on-line.

Reviewers now have electronic access to many tools and forms to help complete a review. Use the RESOURCES link to access data abstraction forms, data collection checklists, methodology papers and links to the Cochrane Handbook and RevMan.

Visit our new web site and let us know what you think. Feedback is welcome!



### EPOC New Reviews and Protocols in 2002

#### Reviews

Szilagyi P, Vann J, Bordley C, Chelminski A, Kraus R, Margolis P, Rodewald L. *Interventions Aimed at Improving Immunization Rates*.
Mottram P, Pitkala K, Lees C. *Institutional versus at-home long term care for the disabled elderly*.

### Protocols

- -Arnold S, Evans M, Straus S. Interventions to improve antibiotic prescribing practices in ambulatory care.
- -Gruen R, Weeramanthri T, Bailie R, Knight S. *Effects of specialist outreach clinics in primary care and rural hospital settings.*
- -Davey, P; Brown, E; Hartman, G. Interventions to improve antibiotic prescribing practices for hospital inpatients.
- -Dick J, Lewin S, Patrick M, Zwarenstein M, van Wyk B, Godwin A. *Lay* health workers in primary care and community prevention.
- -Van Wyk B, van der Walt H, Swartz L, Zwarenstein M. Preventive staff support interventions for health care workers.
- -Wilson A, Childs S. Interventions to change the consultation lengths of primary care physicians: effects on professional practice and health care outcomes.

*Visit <u>http://www.epoc.uottawa.ca/reviews.htm</u> to view abstracts and summaries of the above citations.* 

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#### EPOC EDITORIAL TEAM

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Jessie McGowan (TSC)

Nancy Santesso (KT specialist)

Anna Farmer (Research Fellow)

Chanie Cunningham (Research

# Methodology Tips

# How do you include trials with more than two groups into a single meta-analysis?



Many clinical trials randomise participants to one of several intervention groups (typically one control group and two or more intervention groups). When considering such trials for a systematic review, a reviewer must think about which intervention groups are relevant to their review and which groups are relevant to particular metaanalyses.

In addition, if more than two groups are to be considered for a single metaanalysis, the reviewer has a couple of options available to them:

1. Each pair-wise comparison (control versus intervention 1; control versus intervention 2 ...) may be included separately, but with control group(s) divided out evenly among the comparisons. For example, if a trial compares 100 control hospitals with 100 hospitals receiving reminders for asthma and with another 100 hospitals receiving reminders for diabetes, then two comparisons of 100 intervention hospitals against 50 control hospitals might be entered into a meta-analysis

of reminders.

**2.** All intervention arms might be combined into one group, and all control arms might be combined into a control group. In the above example, this implies a single comparison of 100 hospitals (control) versus 200 hospitals (intervention 1+2).

In no circumstances should all participants in the control group be added twice to the same meta-analysis. Further detailed discussion may be found in the latest version of the Cochrane Handbook.

#### Things for reviewers to consider

Which intervention groups are relevant to the review?

Which intervention groups are relevant to a particular meta-analysis?

How to include multiple intervention groups in a meta-analysis?

Craig Ramsay EPOC Statistical Editor

# Methodology Resources

### The Cochrane Reviewer's Handbook

On-line and in PDF format at <u>http://www.cochrane.org/cochrane/hbook.htm</u> The Reviewers' Handbook is the official document which describes in detail the process of creating Cochrane systematic reviews.

### **NEW** Cochrane Collaboration open learning material for reviewers

On-line and in PDF format at <a href="http://www.cochrane-net.org/openlearning/">http://www.cochrane-net.org/openlearning/</a>

This material is designed to help train reviewers in the methods and processes of performing a Cochrane review. It includes information about the formulation of appropriate questions, literature-searching, critical appraisal, statistical analysis and interpretation and application of findings. Use this with The Cochrane Reviewer's Handbook and as a stand alone training module.

### **EPOC Methods Papers**

Papers available in PDF format at <u>http://www.epoc.uottawa.ca/methods.htm</u> These papers were developed to deal with common methodological issues encountered within our reviews.

Do you have any methodology questions?

Contact Laura McAuley at <u>Imcauley@uottawa.c</u> <u>a</u>

We may feature the answer to your question in our next

### Incorporating information on adverse events into our reviews

Cochrane reviews have, until now, concentrated on assessing the effectiveness of interventions in randomised trials for two reasons. **First**, it was the only realistic way of getting to grips with the huge heap of trials that had to be reviewed. **Second**, efficacy or effectiveness is what clinical trials set out to demonstrate.

The sophisticated search strategies were developed to ensure that all randomised controlled trials (RCTs) are identified. Α consequence of the focus direct on effectiveness, that is, the intended and hoped for benefits of interventions, has been the relative neglect of adverse effects. The Collaboration has taken almost ten years to realise that negative effects need as much attention as the positive ones, and assessed should be with similar Until our reviews do that thoroughness. they remain seriously biased.

The evidence about harm done by interventions is much less solid than evidence of effectiveness from good controlled trials. Trials are designed to detect and quantify specified benefits. Most trials to find out whether an intervention does harm are unethical, eq. human toxicology. There are many different kinds of harm, and most of them are unexpected so that adverse outcomes can often not be specified in trial Because of this asymmetry beprotocols. tween benefits and harms, reports of RCTs contain very little information about adverse events - rarely describing how they were looked for and recorded, and giving little detail.

Much important information about adverse effects of organisational interventions comes

from qualitative studies, including surveys and interviews made after the main study has been completed and published.

These problems have serious implications for EPOC reviews, even though adverse effects of organisational interventions are more rarely reported than adverse effects of drugs or surgery. Meta-analyses will hardly ever be possible, only descriptive summaries.

Apart from developing search strategies for finding reports of adverse events, and methods for summarising and combining them, our reviews need to consider what kinds of adverse events/consequences of interventions we should look out for. Very often they will appear much later than the positive effects that studies are planned to detect.

# How can EPOC reviewers incorporate information on adverse events into their reviews?

As a first step, and the only one that EPOC reviewers can take immediately, is to discuss the problem in the review and to suggest how it might be best pursued. One way to encourage that would be to intro-duce a standard heading, at least in the Discussion section, say 'Adverse Effects'.

Andrew Herxheimer Emeritus Fellow, UK Cochrane Centre

**MORE INFO** A proposed draft addition to the Cochrane Reviewer's Handbook for recommendations for considering adverse effects and beneficial side effects has been developed. Read this document at http://www.dsru.org/wwwboard/latestdraft.pdf



### Interested in writing a review and already have a topic in mind?

You can register your title using the form found on the EPOC web site or you can submit the title electronically directly from our web site.

Visit <u>http://www.epoc.uottawa.ca/titleregistration.htm</u>.

# Study designs accepted for inclusion in EPOC reviews

Although randomised controlled trials (RCTs) are considered the "gold standard" of study design, EPOC recognizes that it may not be feasible to evaluate many organizational, professional or financial interventions in a RCT.

Therefore, any of the following five study designs may be considered for inclusion in EPOC reviews. We ask reviewers to consider their specific review question in deciding which design(s) to include and provide some iustification or rationale for the decision.

# Patient randomised controlled trials (P-RCT)

Individual patients are randomised to an intervention or control group. Randomisation ensures that patients in each group should differ only in their exposure to the treatment – all other measurable and non-measurable effects should be distributed equally between the groups.

Although the P-RCT is considered the most method robust of health technology assessment, it may be suboptimal for many comparisons that evaluate interventions within the scope of EPOC. In some cases, there is a danger that the treatment offered to control patients will be contaminated by health care professionals' experiences of applying the intervention to patients in the experimental group resulting in an underestimate of the true effects of strategies.

# Cluster randomised controlled trials (C-RCT)

C-RCTs overcome the contamination by randomising professionals or groups of professionals to different interventions. However, this means the fundamental assumption of independence is violated, because patients within any one cluster are more likely to respond in a similar manner (e.g. treatment of patients by a single physician is more likely to be more consistent than treatment by a number physicians).

This lack of independence means larger sample sizes are required to adjust for the clustering effect, and analysis should be undertaken at the cluster level or using special analytic techniques.

# Non-randomised cluster controlled trials

These are patient or cluster trials where allocation to treatment and control groups was quasi-random (e.g. alternated allocation).

# Controlled before and after studies (CBAs)

CBAs incorporate a non-randomised control group. Data is collected on the control and intervention groups before the intervention is introduced and then further data is collected after the intervention has been introduced. The reliability of the estimate of effect is questionable because there may be unidentified differences between the intervention and control groups which may have contributed to the effect.

### Interrupted time series designs (ITS)

ITS designs provide a robust method of measuring the effect of an intervention when randomization or identification of a control group are impractical (e.g. change in policy) Multiple data points are collected before and after the intervention. The intervention effect is measured against the pre-intervention trend. There is no way to assess the impact of any concurrent events on the outcomes of interest.

### Lumping and Splitting

EPOC is working on our editorial policy on lumping and splitting – look for further information in the next issue.

We are interested to hear your thoughts as we work out our policy. Send any comments to <u>Imcauley@uottawa.ca</u>

# New members of the EPOC team

We wish to welcome and introduce the new members who joined our team since July 2002.

### Phil Alderson, editor

Phil is the Associate Director of the UK Cochrane Centre and a public health doctor. He has worked at the UK Cochrane Centre since 1996, and been in charge of its training programme since 1998. He teaches on systematic review courses and has aided in the development of a short course on analysis of systematic reviews and has developed the Cochrane Collaboration's Open Learning Material for Reviewers. Phil was previously an editor for the Cochrane Injuries Group and published several reviews with the Cochrane Injuries Group. He is currently working on a review of the effects of public disclosure of hospital and clinician performance data.

### Jessie McGowan, Trial Search Co-ordinator

Jessie is also an Adjunct Professor in the Department of Medicine at the University of Ottawa and Senior Information Scientist with the Institute of Population Health/Ottawa Health Research Institute. After graduating with a Master Degree in Library and Information Science, she worked as a health librarian as Manager of the Ottawa General Hospital Library, with the Canadian Medical Association and most recently as Director of Library Services with The Ottawa Hospital. She has been President of the Ontario Health Libraries Association and currently is the Past-President of the Canadian Health Libraries Association (CHLA/ABSC) and Co-Chair of the Steering Committee of the National Network of Libraries for Health, a task force of CHLA/ABSC.

Jessie is presently updating the EPOC registry. In addition, **Anna Farmer** (research fellow), **Chanie Cunningham** (research assistant) and **Cara Bradley** (Librarian at Regina General Hospital) are helping to code articles for the EPOC Registry.

If you have any questions about search strategies or questions about the EPOC registry, please contact Jessie at <u>jmcgowan@uottawa.ca</u> or call (613) 562-5800 ext. 2359.

### Nancy Santesso, Knowledge Translation Specialist

Nancy is a Registered Dietitian and practiced clinically before completing a Masters of Library and Information Science. She also completed shortterm contracts at the Evidence Based Centre of Mental Health in Oxford developing patient information; at the Biomedical Library, Vanderbilt University Medical Centre providing critically appraised topics for emergency physicians; and, at the Consumer Health Information Centre, Royal Victoria Hospital, Barrie providing health information to patients.





## Upcoming Meetings

### The IX Cochrane Colloquium - Evidence, Health Care and Culture Barcelona, Spain, 26 - 31 October 2003

The Iberoamerican Cochrane Centre will host the 11th Cochrane Colloquium at Barcelona from Sunday, October 26 to Friday, October 31, 2003.

The Colloquium will focus on evidence, health care and culture. The aims are to address the process of producing quality health care information in depth, and at the same time explore its availability and application, bearing in mind the different circumstances faced by citizens, health care professionals and governments around the world.

Abstracts for oral and poster presentations can be on any topic related to the objectives and topics of the Colloquium. The poster presentations will be available for viewing throughout the second part of the Colloquium. **The deadline for submission** of abstracts is **15<sup>th</sup> April 2003.** 

### The Canadian Cochrane Symposium - Knowledge Translation Hamilton, Canada, 21 – 22 November, 2003

This is the third bi-annual conference of The Canadian Cochrane Network and Centre. At the conference Cochrane supporters and contributors meet to help promote and develop the work of the Collaboration in Canada, and to help shape the future directions for the CCN/C. More information about this upcoming event can be found soon at <a href="http://cochrane.mcmaster.ca/">http://cochrane.mcmaster.ca/</a>.

### Upcoming Cochrane Protocol and Reviewer Training Workshops

To view upcoming workshops provided by Cochrane Centres taking place across the world, please visit <u>http://www.cochrane.org/cochrane/workshop.htm</u>.



## For fun - Visit Ottawa - Home of EPOC

EPOC is located at the Institute of Population Health at the University of Ottawa on 1 Stewart Street.

Also spend some time visiting the winter attractions in Ottawa before spring thaw. You won't want to miss skating on the canal and enjoying "beaver tails" and hot cider.



Visit the web site at <a href="http://www.colloquium.info/">http://www.colloquium.info/</a>

2003 Canadian Cochrane Symposium on Knowledge Translation

November 21-22 Hamilton, Ontario If you would like to contact us, change your contact information or would like to contribute to the EPOC group, please fill out this form and send via post or contact us at the address below.

Name:		
Job/Title Position:		
Address:	Telephone: Fax:	
Email:		
Professional		
Interests:		
Interests relevant to EPOC		
(if different than above)		
Proposed contribution to EPOC		
(undertaking a review – give area,		
literature searching, peer review)		
How would you like to receive future newsletters:		
By post or by email (indicate address if different than above)		

**Contact Us:** Cochrane Effective Practice and Organisation of Care Group

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# Recipe - In Keeping With Tradition

EPOC was first registered as "Cochrane Collaboration on Effective Professional Practice" or **CCEPP**. CEPs are edible fungi – so here is our traditional CEP recipe.

#### CHOCOLATE MUSHROOM COOKIES

(for those occasions when you want to include mushrooms in cookies!) Baked by Jessie McGowan and flavour tested by EPOC staff at IPH

1/2 cup Butter or Margarine1 large Egg1 cup Light Brown Sugar, firmly packed1/2 tsp. Almond Extract2 oz. Unsweetened Chocolate, melted and cooled1 tsp. Vanilla Extract2 cups All-Purpose Flour

1/2 tsp. Baking Soda
1/4 tsp. Salt
3/4 cup Dairy Sour Cream
1/2 cup Macaroon Crumbs, fine
1/2 cup Maraschino Cherries, drained & chopped
1/2 cup Nuts, chopped
1 cup Fresh Mushrooms, coarsely chopped

Cream butter and sugar. Add egg, vanilla and almond extract; beat thoroughly. Stir in chocolate. Sift flour,baking soda and salt; add to creamed mixture alternately with sour cream. Mix well; add remaining ingredients. Drop from a teaspoon 2 inches apart on a greased cookie sheet. Bake at 350 F for 12 minutes. Remove from pan; cool. Makes about 5 dozen.

Recipe can be found at <a href="http://db.adhost.com/mushroomcouncil/recipeDetails.cfm?RecipeID=187">http://db.adhost.com/mushroomcouncil/recipeDetails.cfm?RecipeID=187</a>.