Editorial processes for diagnostic test accuracy reviews

Practical issues for authors and review groups

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1. Current status of DTA and the Cochrane collaboration
2. Editorial process
3. Questions
What’s needed to publish a Cochrane review?

- RevMan
- Cochrane Handbook
- Cochrane review group
  - Administration
  - Editors
  - Searching expertise
  - Statistical expertise
  - Methods expertise
- Peer review
Current status

- Steering group decision April 2003 to publish Cochrane DTA reviews.
- RevMan5 (March 2008)
- Handbook Chapter 4 published.
- DTA editorial team
- 8 pilot protocols in *The Cochrane Library*
- Training for authors and editorial teams
Some aims of the editorial process and peer review for Cochrane reviews

- To provide specific expertise and advice for authors in the preparation of Cochrane systematic reviews in order to
  - produce a review with a focussed and clinically useful review question.
  - minimise bias by ensuring the review is prepared in accordance with the Handbook using appropriate methods and analyses and to ensure a protocol is prepared before the review is prepared.
  - Ensure the full review is a responsible, clinically meaningful document that accurately reflects the available evidence.

- To avoid duplication of reviews

- To obtain external peer review

- To edit the review for publication in the Cochrane Library (format, clarity, copy editing, proof reading)
Cochrane review groups

- Editors: clinical, running RCTs, systematic review of RCTs, clinical background, MA of interventions (Statistical editors).

- TSCs expertise and knowledge is focused on identifying RCTs.

- RGCs are familiar with Handbook (Interventions) methods and critical appraisal of RCTs and Systematic reviews of RCTs.

This team provide authors with very good:
- Advice and guidance on systematic review research methods
- On using software
- Access to statistical help

Generally CRGs provide a very high probability of publication in the Cochrane Library.
Comparison of Capacity

Reviews of interventions

Reviews of diagnostic test accuracy

1993 to 2008 (15 years)
1787 protocols 3384 reviews
489 editors in 51 CRGs
13033 authors

2007 to 2008
8 reviews*
~20 editors
44 authors in 8 CRGs*

Does not include newly registered review titles
Reviews of interventions

CRG

- Title appropriate
- Administration
- Software
- Editor input (Clinical and methodological)
- Peer review
- Advice
- Consumer input

Publication

Reviews of diagnostic test accuracy

CRG

- Title appropriate
- Administration
- Software
- Editor input (Clinical)
- Peer review
- Advice

DTA Editorial team

Publication

Title appropriate

Review question
and methods

Peer review
of methods

Peer review
of methods

Title appropriate

Review question
and methods

Peer review
of methods

Peer review
of methods

Title appropriate

Review question
and methods

Peer review
of methods

Peer review
of methods
Summary Editorial process for DTA reviews

- **Title registration (optional)**
  - Priority?
  - Review question
  - Review team, clinical usefulness

- **Protocol**
  - Review question(s)
  - Methods
  - Text

- **Publication of Protocol**

- **Review**
  - Methods
  - Interpretation of results and discussion
  - Text

- **Publication of full review**
Title registration (optional service)

Author proposes a review title

CRG
- Screening, prognosis
- Scope
- Priority list of reviews or a new priority?
- Areas of common interest

Feedback regarding DTE Editorial team
Advise author of DTA resources
- Handbook
- RevMan5
- other information
- Agrees title with author

DTA Editorial team
- title appropriate
- research question
- selection of index test(s)
- comparator test(s)
- reference standard
- target condition
- Participants/population
- study designs

Register title on IMS

Author considers comments
Areas of common interest
‘lipoproteins for coronary heart disease in people with diabetes’
may be of interest to the Cochrane Heart Group and the Cochrane metabolic
and endocrine disorders group.

Chest pain could be Heart disease (Cochrane Heart Group) or Oesophagitis
(Cochrane Upper Gastrointestinal and Pancreatic Diseases Group)
Relevant clinical question (balancing author needs with the needs of the CRG)

Authors propose

“Immunochromatography-based rapid diagnostic tests for malaria”

The authors wish to compare two types of immunochromatography tests.

CRG considers

There are approximately 100 such tests.

Compare all tests? Just two tests? The most widely used tests? Reference standard? Other important comparator test?

Population (antibody load will be different)

- Travellers to areas with endemic malaria
- Or
  - Indigenous population

Commercial application

Manufacturer, Distribution, longevity, ease of use, Other factors?
Protocol (1)

**Author** sends in Protocol to **CRG**

**CRG**
- English
- Content (Background is suitable length with references).
- Returns to author if needed

- Sends to
  - DTA Editorial team for methodological review
  - Contact editor or to editors for clinical peer review
  - Consumer
  - Developing country specialist
  - Peer reviewers

**Author** edits Protocol, sends to **CRG**

**Author**
Addresses the editors comments

**Examples to follow!**
Protocol (2)

Author sends REVISED Protocol to CRG

CRG Sends Revised protocol to
- DTA Editorial team
- contact editor
- Others peer reviewers

To check the authors have revised the Protocol as requested

CRG
Assesses the REVISED protocol
Either returns to authors

OR
Prepares to publish
Sends complete Protocol for sign off for publication

DTA Editorial team
- Checks the comments have been addressed
- Makes a NOTE of any that are IMPORTANT
- Feedback to CRG

Publication of Protocol
## Protocol - examples

### CRG
- Title and aim are consistent with TRF?
- Title unambiguous
- Suitably detailed content in all sections
- Author team has suitable expertise

### DTA Editorial team
- Suitable reference standard planned
- Suitable index tests(s) and comparator test (If included).
- Assessment of quality of primary studies is suitable.
- Study design appropriate and not likely to cause bias.
- Population is clinically representative and appropriate for the diagnostic test.
- Statistical analysis is appropriate.

For example: A systematic review to diagnose back pain using simple anatomical/physical testing use populations from Secondary care. And therefore the specificity and sensitivity of the test would be different (as all patients had been referred for back pain) if the population has been recruited from primary care.
Protocol

- The coordinating editor
- AND
- The Editor of the DTA Editorial team
  - can read the Protocol and assess the suitability for publication in *The Cochrane Database of Systematic Reviews*
    - methods appropriate to answer the question
    - meet Cochrane standards
    - contains appropriate clinical information
Things to consider?

- CRGs Prioritise reviews. Set a limited number of priority reviews with pragmatic and focussed clinical questions and consider author requests within your priority reviews.

- Authors ensure there is suitable experience of systematic reviewing and statistical expertise (Someone able to run advanced stats packages) within your review team.

- Beware ‘other’ DTA methods. Only those in the Cochrane Handbook will be supported.

- CRGs Recruit a dedicated DTA editor and DTA statistician (Training for statisticians July 2009 Birmingham).

- Regional Support units will assist CRGs within their capacity.
Things to consider?

- Identify new collaborators with research background in diagnosis and testing – look to identify dedicated editors(s) with experience of diagnostic research
- Availability of the draft version of Handbook (Chapter 4)
- Training for authors and editors before registering reviews
- The research in SR of DTA studies is evolving rapidly and the Handbook will change.
- Pilot / early stages /
- Anything else? – other questions?
End
Cochrane DTA organisations

**DTA editorial team**

- Formal assessment of Protocol and Review (Sign off for publication)
- Share responsibility for quality of Protocols and Reviews
- External methodological peer review of Protocol and Review
- Informal assessment of Title registration form or title proposals.

**DTA Regional Support Units for CRGs**

- Resource for CRGs to support their authors
- Regional – UK, continental Europe, Australasia, and North America.
- Provide training for CRGs authors, statisticians
- Link to DTA editorial team

**Cochrane DTA working group**

- Work on RevMan5, Handbook, Website other Logistical aspects

**Screening and diagnostics test methods group**

- Methodological and statistical research
Roles of CRG, support unit and DTA EB

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<thead>
<tr>
<th>CRG</th>
<th>Support unit</th>
<th>DTA editorial team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact for author</td>
<td>Contact for CRG</td>
<td>Topic list advice</td>
</tr>
<tr>
<td>Administrator</td>
<td>Informal advice</td>
<td>Advice on title, for question formulation (optional)</td>
</tr>
<tr>
<td>CRG peer review</td>
<td>Training</td>
<td>Approval for publication</td>
</tr>
<tr>
<td>Manage review in ARCHIE</td>
<td></td>
<td>Assess methods in the protocol and review</td>
</tr>
<tr>
<td>Manage preparation for publishing</td>
<td></td>
<td>peer review</td>
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Approval for publication
- Assess clinical relevance of review questions and peer review
Things to consider?

- Set a limited number of priority reviews with pragmatic and focussed clinical questions.
- Consider author requests within your priority reviews.
- Check author teams carefully to ensure there is suitable experience of systematic reviewing and statistical expertise (Someone able to run advanced stats packages).
- Beware ‘other’ DTA methods. Only those in the Cochrane Handbook will be supported.
- Recruit a dedicated statistician (Training for statisticians Dec 2008 or Jan 2009).
- Support units will assist CRGs within their capacity.
Things to consider?

- Identify new collaborators with research background in diagnosis and testing – look to identify dedicated editors(s) with experience of diagnostic research
- Availability of the draft version of Handbook (Chapter 4)
- Training for your authors and editors before registering reviews
- Discuss potential diagnoses ‘common interest’ with other CRGs
- Consider that the research in SR of DTA studies is evolving rapidly and the Handbook will change.
  - Pilot / early stages /
  - Anything else?
End