



# 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?

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



# Current status

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- 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

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- 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

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- Editors: clinical, running RCTs, systematic review of RCTs, clinical background, MA of interventions (Statistical editors).
- TSCs expertise and knowledge is focussed on identifying RCTs
- RGCs are familiar with Handbook (Interventions) methods and critical appraisal of RCTs and Systematic reviews of RCTs

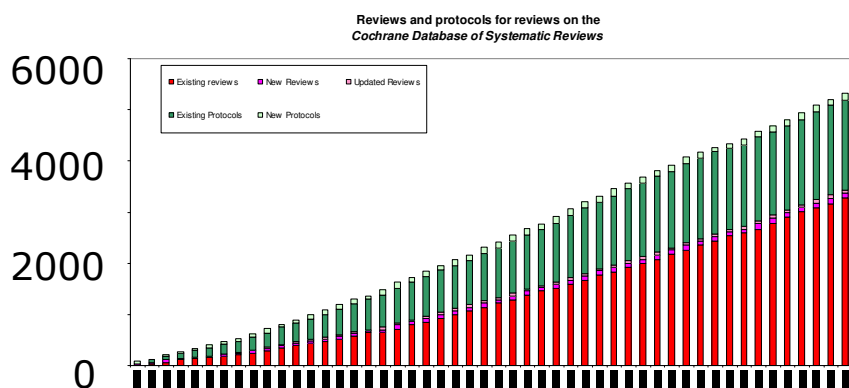
This team provide authors with very good

- 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

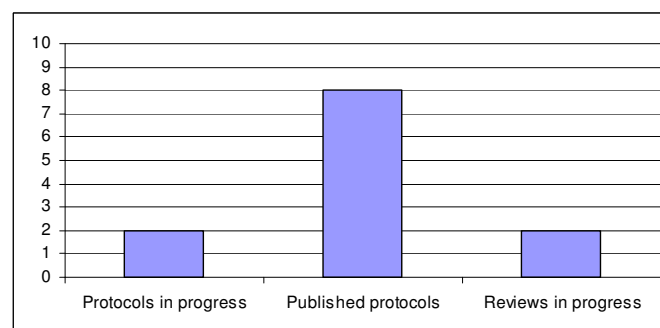
# Comparison of Capacity

## Reviews of interventions



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

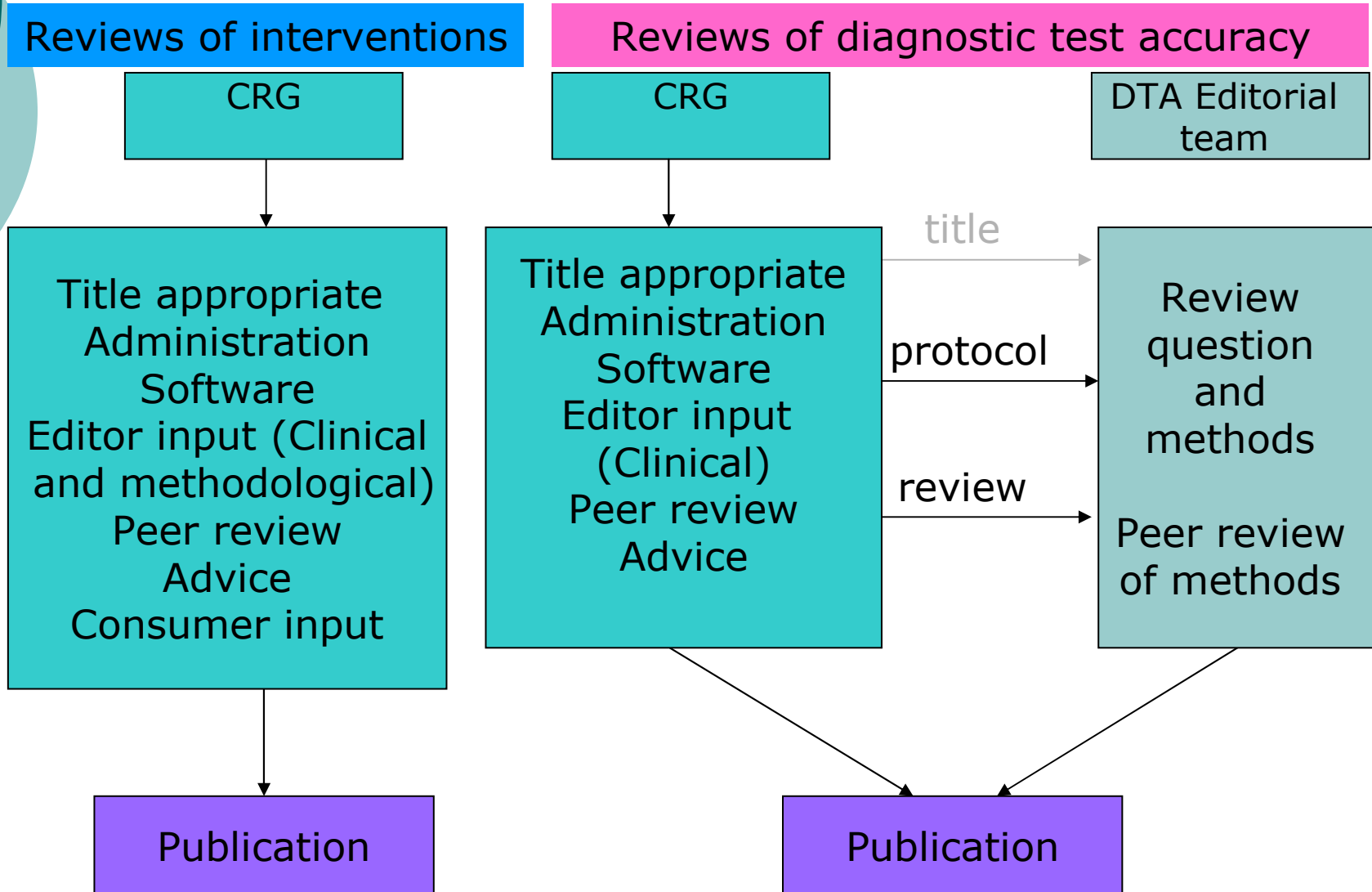
## Reviews of diagnostic test accuracy



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

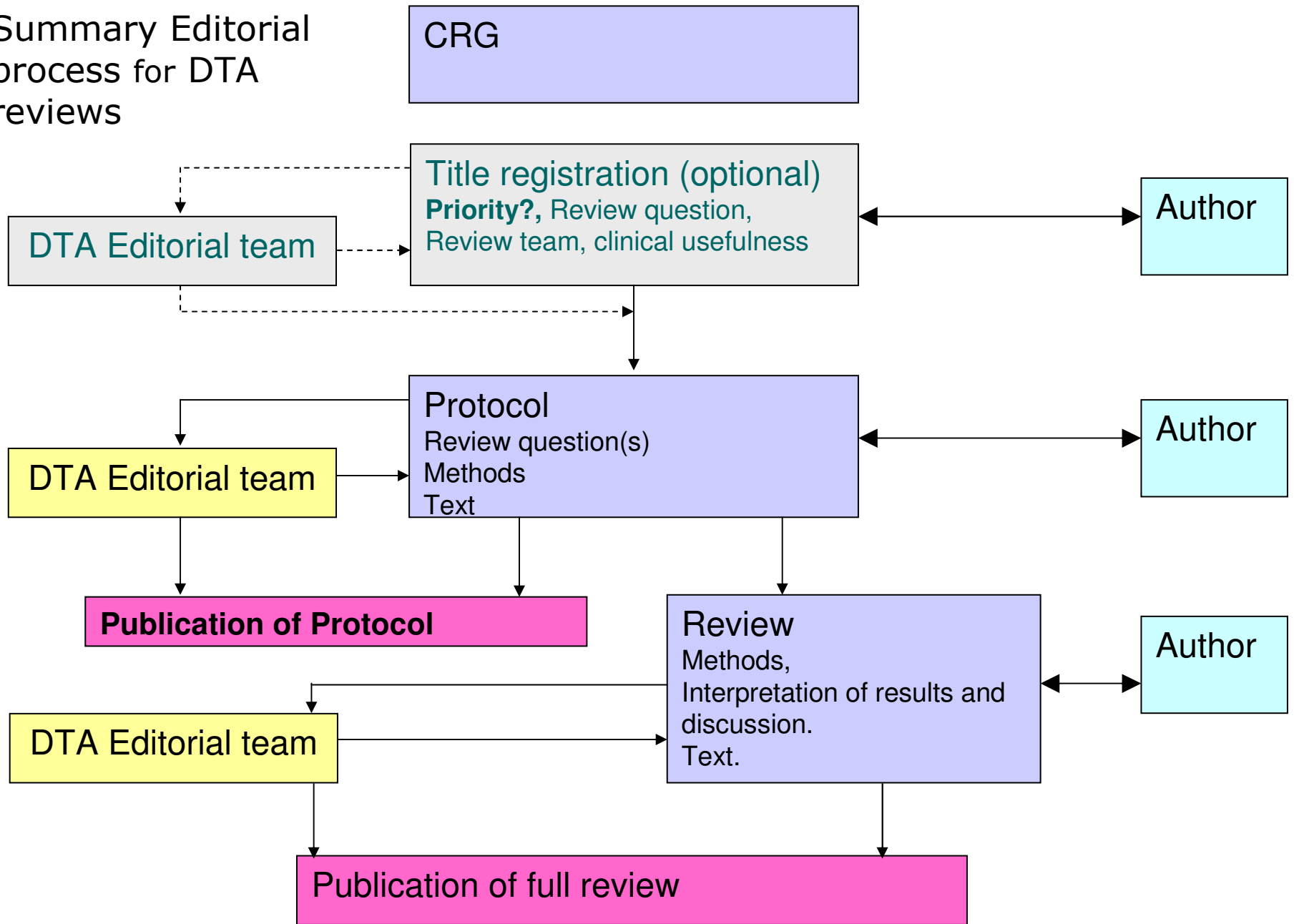
Does not include newly registered review titles

# Editorial process

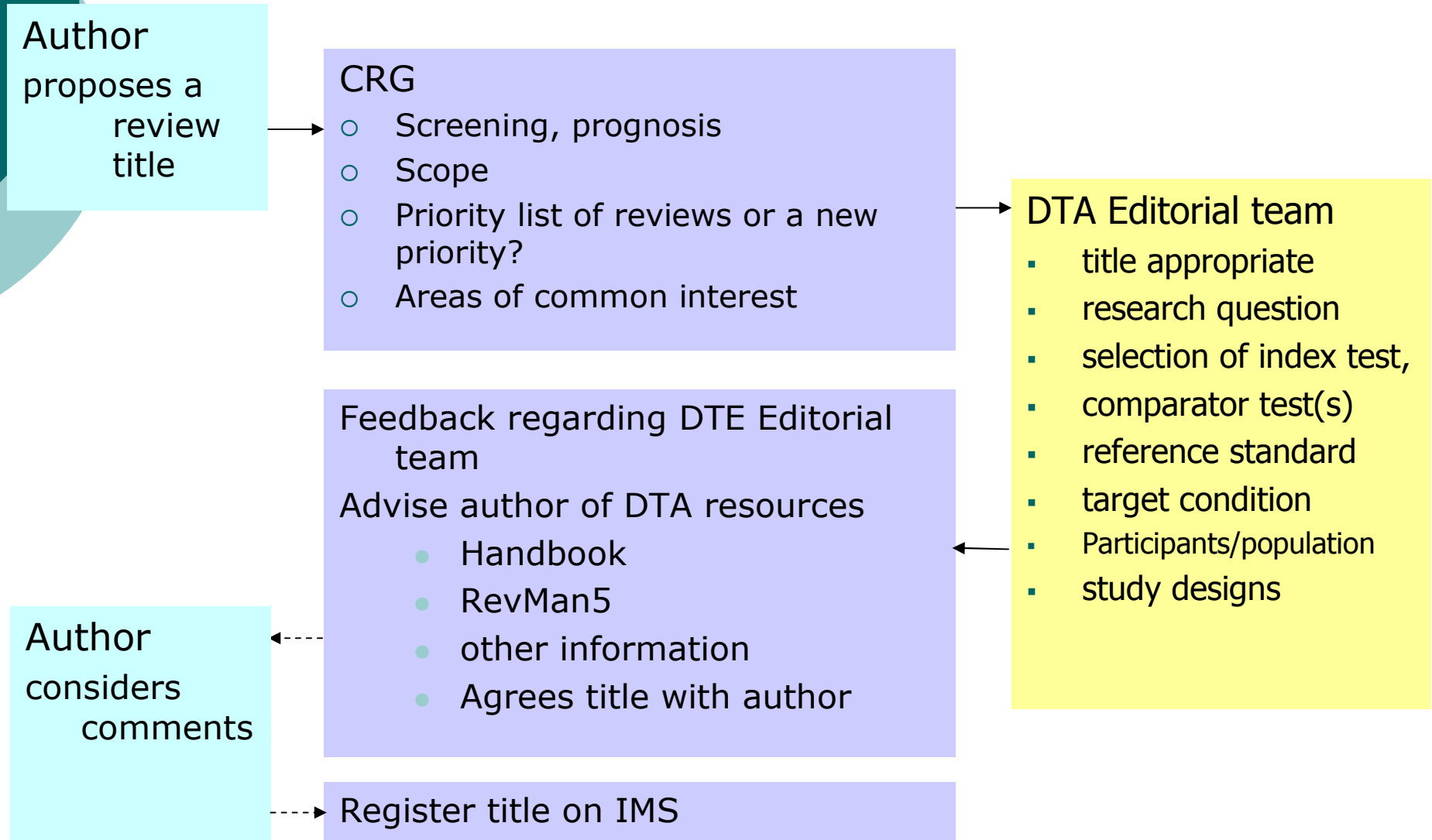




Summary Editorial process for DTA reviews



# Title registration (optional service)





# Title registration

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## **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)



# Title registration

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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

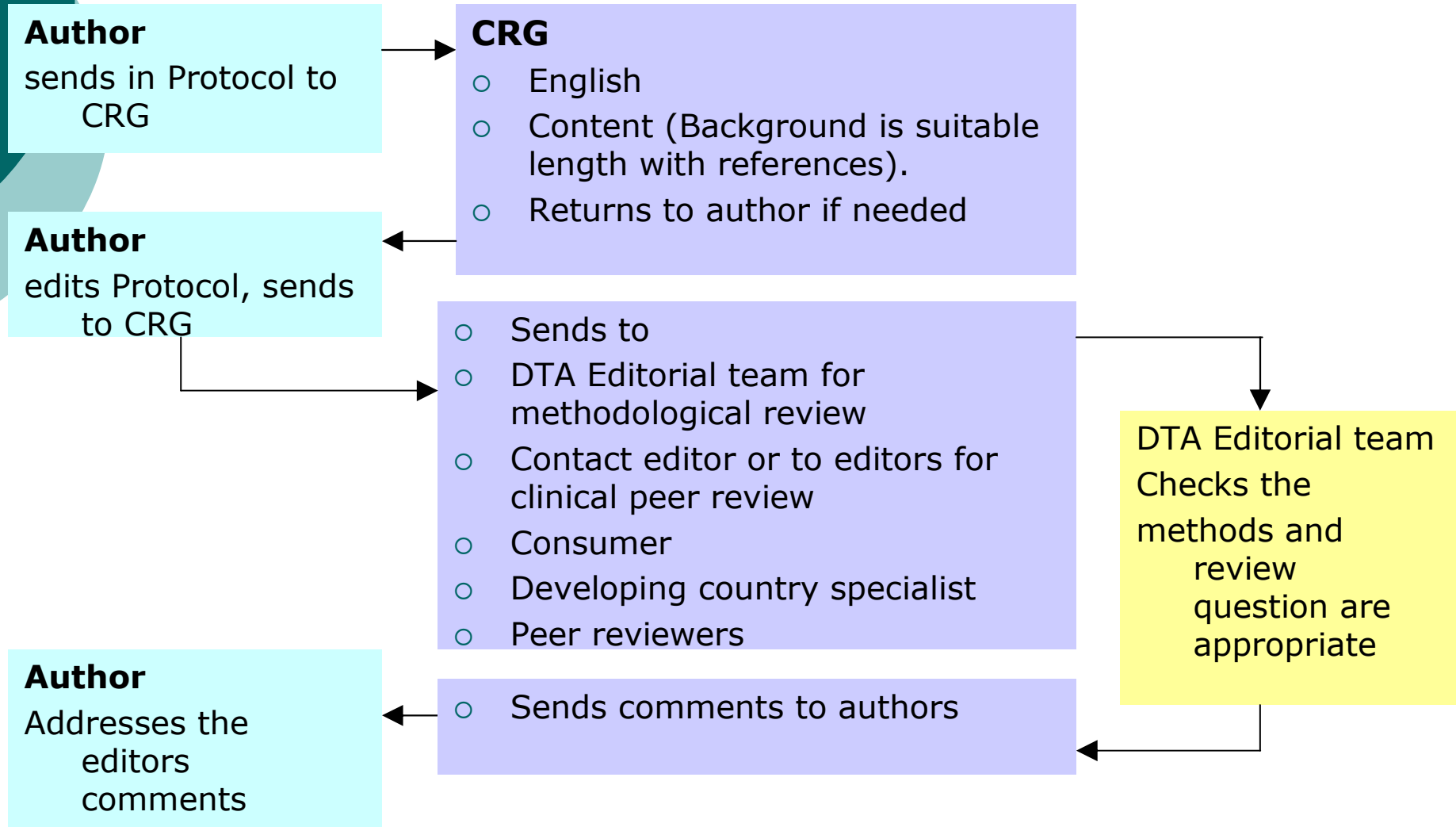
Indigenous population

Commercial application

Manufacturer, Distribution, longevity, ease of use, Other factors?

# Protocol (1)

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

DTA Editorial team

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

Author to revise Protocol

**CRG**

Assesses the REVISED protocol  
Either returns to authors

OR

Prepares to publish  
Sends complete Protocol for sign off for publication

DTA Editorial team

- Assesses final Protocol for publication

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

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- 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?

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- 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?

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- 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

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# Cochrane DTA organisations

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## **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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## **CRG**

- Contact for author
- Administrator
- CRG peer review
- Manage review in ARCHIE
- Manage preparation for publishing

## **Approval for publication**

- Assess clinical relevance of review questions and peer review

## **Support unit**

- Contact for CRG
- Informal advice
- Training

## **DTA editorial team**

### Topic list advice

- Advice on title, for question formulation (optional)

### **Approval for publication**

- Assess methods in the protocol and review
- peer review



# Things to consider?

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- 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?

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- 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

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