The InterTASC Information Specialists' Subgroup (ISSG): collaboration to improve access to search filters

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Today

- What is the ISSG
- What is health technology assessment?
- Information retrieval in HTA context
- How the collaboration works
  - Case study - Search filter website and appraisal tool
- Collaboration
  - Successes and challenges
  - Learning opportunities

What is the ISSG?

- InterTASC Information Specialists' Sub-Group (ISSG)
  - Group of information professionals from six academic research groups currently provide health technology appraisals for NICE
    - InterTASC (Technology Assessment Services Collaboration).
  - InterTASC technology appraisal groups comprise experienced multidisciplinary teams of reviewers, information professionals, health economists, statisticians and research support staff.
  - ISSG members supports the technology appraisal groups
  - http://www.york.ac.uk/inst/crd/intertasc/

What are HTAs?

- Reviews of the effects and/or cost effectiveness of new healthcare technologies
  - Drugs
  - Other treatments
  - Surgical interventions
  - Equipment
  - Diagnostic tests
  - Services
- HTAs are undertaken to provide information to NICE on whether new healthcare interventions offer:
  - Improvements in health outcomes at an acceptable cost
- Important decisions about health care should be informed by the best possible high quality research.

Information retrieval issues in HTA?

- Information retrieval issues are diverse
- High quality HTAs requires the identification of information on
  - effectiveness of the technology
  - its adverse effects
  - the epidemiology of the disease
  - costs and potential impacts of the intervention on the delivery and organisation of health care
  - potential impact of the technology on patients' quality of life
- The state of evidence on efficient information retrieval for many of these topics is sparse.
- How to ensure that technology appraisals are informed by high quality information retrieval?
- Collaboration and information sharing among professionals providing the same type of service?

ISSG activities

- Information professionals involved in InterTASC developed a special interest subgroup
- Meets twice each year
- Has an email discussion list
- Invited information specialists with special skills, subject knowledge or responsibilities relevant to the HTA process
- Guest speakers
  - information specialists, researchers and health economists who provide insight into health technology assessment processes, methods and contexts.

Developing information retrieval skills

- One focus of the ISSG's collaborative efforts has been to identify, appraise and summarise search filters
- ISSG is interested in filters designed to capture:
  - specific study designs e.g. randomised controlled trials
  - types of study e.g. quality of life studies
- Filters are potentially valuable tools to assist with achieving standard approaches if they perform
  - Efficiently
  - Reliably/consistently
- In a world of critical appraisal we need to ask about:
  - Relevance
  - Reliability/consistency
  - Validity

Growth in search filters

- Over the last two decades numbers of published filters has grown
- Research approaches have been used increasingly to develop and test search filters
  - aim to make them more robust and reliable
- Some research-based search filters have been incorporated into major bibliographic databases
  - Clinical Queries filters
- Some filters have been developed to assist with international study identification exercises:
  - Cochrane Central Register of Controlled Trials (CENTRAL)
  - Database of Abstracts of Reviews of Effects (DARE).

ISSG search filter website

- January 2005 ISSG established a website listing search filters
  - http://www.york.ac.uk/inst/crd/intertasc/.
  - Bibliographic details of relevant filters
  - Link to the original paper, an abstract or the full text of the filter.
  - categorised according to their topic or focus
- Filters identified by
  - Members
  - Notification
  - Regular sensitive searches
- Website was rapidly populated
- For some study types there is now a choice of filters
- How to choose between them?

Search Filter Resource

Home page

About the search filters resource

ALL METHODS FILTERS

Systematic reviews

RCTs and other trials

Non-RCTs

Observational studies

Outcome studies

Therapy studies

Adverse events

Diagnostic studies

Quality of life

Economic evaluations

Qualitative research

Public views

Etiology

Prognosis

Systematic reviews

Database	Filter
CINAHL	Wong SS, Wilczynski NL, Haynes RB. Optimal CINAHL search strategies for identifying therapy studies and review articles. *Journal of Nursing Scholarship* 2006;38(2):194-9. SIGN strategy [undated] [Ovid]
EMBASE	Wilczynski NL, Haynes RB, Hedges Team. EMBASE search strategies achieved high sensitivity and specificity for retrieving methodologically sound systematic reviews. *Journal of Clinical Epidemiology* 2007;60(1):29-33. [Ovid] BMJ Clinical Evidence strategy [undated] [Ovid] SIGN strategy [undated] [Ovid]
MEDLINE	National Library of Medicine: systematic reviews PubMed subset strategy [2008] [PubMed] ISSG structured abstract ISSG search filter appraisal Grady EBM strategy [2007] [Ovid] Montori VM, Wilczynski NL, Morgan D, Haynes RB. Optimal search strategies for retrieving systematic reviews from MEDLINE: analytical survey. *BMJ* 2005;330(7482):68.

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How to choose?

- Unstructured assessment
- Structured assessments
  - Critical appraisal instruments or quality assessment tools or checklists
  - Formalise assessment
  - Minimise risk of missing comparison elements
  - Consistent analysis of all items being compared
  - Drawing out the key elements of a study
    - Relevance
    - Focus
    - Quality
    - Reliability established through testing
    - Comparability with other filters
- ISSG members agreed to undertake a collaborative project
  - Feasibility of developing, testing and publishing a search filter appraisal (SFA) checklist by consensus methods.

Development of ISSG tool: Meeting 1

- Evaluate existing search filter appraisal checklists
  - Jenkins M. Evaluation of methodological search filters: a review. Health Info Libr J 2004;21(3):148-63.
    - No published studies reporting use of Jenkins checklist
    - Usage levels unknown
  - ISSG tested suitability of the Jenkins search filter appraisal and a draft ISSG checklist and a draft ISSG brief summary (abstract).
    - search filter
    - Zhang L, Ajiferuke I, Sampson M. Optimizing search strategies to identify randomized controlled trials in MEDLINE. BMC Med Res Methodol 2006;6. doi:10.1186/1471-2288-6-23.

Develop and test new tool: Meeting 2

- Testing of revised ISSG checklist
  - Group members examined the usefulness of the tool in assessing three different filters
  - Filters were developed using different methods of filter design
  - Two summary formats were discussed:
    - a structured abstract
    - a 100-word summary abstract.
  - The group discussed how useful tool was in assessing filter:
    - Usability
    - Clarity
    - Practicality
    - Reproducibility

Revise and finalise tool

- The tool was revised again.
- Further round of email feedback.
- The final ISSG tool and abstract were agreed in a meeting in April 2007.
- Subsequently a paper describing the tool and its development and testing was drafted.
  - submitted for publication to the Journal of the Medical Library Association.
- Critical appraisals using the tool added to the ISSG web site.
  - See http://www.york.ac.uk/inst/crd/intertasc/diag.htm.

Collaboration – what worked

- The ISSG members worked well together
  - Common interest
  - Producing a helpful tool for members' own work supporting technology appraisals
  - Aim of achieving a publication
  - Promote the tool to other health information professionals
- Value of collaboration
  - Learning about search filter development methods
  - Becoming better informed about a key resource in information retrieval in health care
  - Better appreciation of the importance of clear research methods and research reporting
  - Improved awareness of strengths and weaknesses of tools we use
    - Most filters receive little validation testing
    - Performance figures are lacking

Collaboration – what worked

- Group members could choose their level of involvement according to their interest and availability
- Adequate numbers of members actively involved
- The group only had informal funding
  - Important that a core group of project co-ordinators were present to maintain the project momentum.
- Pattern of meetings interspersed with email correspondence and exchanged Word documents seemed to work well.

What did we learn?

- Informal funding and collaborative arrangements impact on speed of project progress
  - Deadlines had to be long-term enough to encourage continued involvement
  - With gaps between meetings members might lose track of the state of play of the project and the project detail.
- The co-ordination of comments on, testing and editing might have been aided by the use of shared documents
  - Google Docs or a wiki.
  - Use of a weblog, or blog, for the project might have helped with less formal project co-ordination and idea exchange.
- Validating the ISSG search filter appraisal tool required more resources
  - Ideally, the group should have taken more time to validate the tool, and this is a topic the group intends to discuss with funders, along with support for the website as a whole.
  - Research projects need adequate funding.

What did we learn?

- Achieving a publication is hard work
  - Don't underestimate the time required to write and deal with referees' comments
  - The more collaborators the more administration and the more pieces of paper required to submit to a journal
  - Need to be well organised.
- Time doesn't stand still
  - In parallel with the ISSG tool, another research team was working on a development of the Jenkins' tool called the CADTH Critical Appraisal Instrument (CAI)
  - It would have been really helpful to have conducted some comparative evaluations
- Successful collaboration is possible
  - Research-orientation of the group
  - High levels of common interest
  - Enthusiasm for sharing skills
  - Clear objectives
  - Patience

Thanks to past and current ISSG members

http://www.york.ac.uk/inst/crd/intertasc/