



Library Services



Searching Systematically – enhancing skills for systematic reviews part 2



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Learning Outcomes

- Focusing your research question
- Drawing up your search strategy
- Systematically searching for relevant information
- Managing your information
- Documenting your search process



Session Outline

1.

- Interpreting a search strategy – advanced search techniques in Ovid databases

2.

- Grey literature and how to find it

3.

- Selecting and managing studies

4.

- Documenting your search

5.

- Where to go to get extra help/find out more



Keats support module

Part 2

Part 2 Enhancing Skills for Systematic Reviews – Learning Outcomes

Advanced searching techniques using Ovid databases

1. [How to read and interpret a search strategy](#)
2. [How to search for and access grey literature for your subject](#)
3. [How to select studies for inclusion](#)
4. [How to document your search](#)
5. [Where to go for further help and support](#)



[Presentation slides from Part 2](#)

PDF of workshop presentation



[Understanding Systematic Review search strategies guide](#)

A guide to understanding search strings and search commands within key databases

Search for

“Enhancing Skills for
Systematic Reviews”

Click “enrol me”



Has someone beaten you to it?

Check PROSPERO -

International prospective register of systematic reviews

www.crd.york.ac.uk/PROSPERO/



A sample search strategy



Music interventions for improving psychological and physical outcomes in cancer patients - Cochrane Database of Systematic Reviews

Available in your reading list



Exercise 1

Advanced search techniques – Ovid databases

Truncation	behavio* therap*
Wildcard searching	p?ediatics wom?n
Adjacency searching	acute adj5 otitis media
Boolean operators	AND/OR/NOT/SAME
Floating sub-headings	Fs.
Limiting to fields	PT, TW, AB



Sources of existing search strategies

Cochrane Library

- Cochrane Reviews: Cochrane Database of Systematic Reviews
- *Database of Abstracts of Reviews of Effect*

Campbell Collaboration

- systematic reviews in education, crime and justice, and social welfare

Evaluate the quality – can you use it, or can you do better?



Assessing the Quality



Peer Review of Electronic Search Strategies -
PRESS EBC

- Evidence based checklist
- Quick quality assessment check

PRESS EBC can be used to assess your own and existing systematic reviews strategy search strategies



Search filters – for study type

Cochrane filter for RCTs

- <http://handbook.cochrane.org/> (section 6.4.11)



SIGN

<http://www.sign.ac.uk/methodology/filters.html>

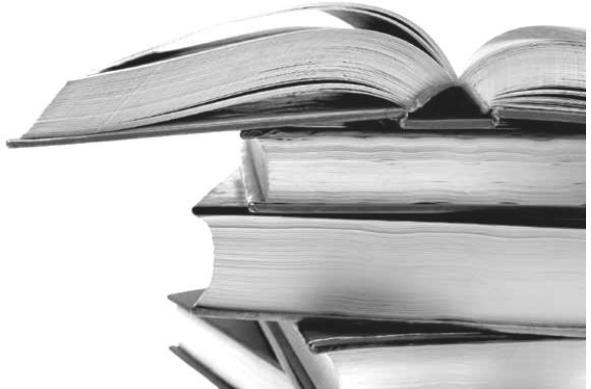
Centre for Reviews and Dissemination

<http://www.york.ac.uk/inst/crd/intertasc/rct.htm>

National Clinical Guideline Centre

<http://www.ncgc.ac.uk/Guidelines/>

Filters can be copied into your search strategy



“There are many definitions of grey literature, but it is usually taken to mean literature that is not formally published in sources such as books or journal articles.” – Cochrane Handbook

Formats include:

- Technical or research reports from government agencies
- Reports from scientific research groups
- Working papers from research groups or committees
- Doctoral dissertations
- Some conference proceedings and official publications



Publication bias

Papers with ‘interesting’ results are more likely to be

- Submitted for publication
- Accepted for publication
- Published in a major journal
- Published in the English language

Goldacre, B. (2012) *What doctors don't know about the drugs they prescribe*,
Available:

http://www.ted.com/talks/ben_goldacre_what_doctors_don_t_know_about_th_e_drugs_they_prescribe [Accessed 2nd June 2014 2014].



Searching grey literature

- **OpenGrey** <http://www.opengrey.eu/>
- Libraries of specialist research organisations and professional societies – check via **OpenDoar**
- **HMIC** (The Healthcare Management Information Consortium) via Databases list (King's username and password)
- **Global Health** – Ovid via Databases list (King's username and password)



Social Science Research Network www.ssrn.com/

- 451,800 abstracts and 365,700 full-text docs. Subject specific networks, including one for health

Social Care Online www.scie-socialcareonline.org.uk/

- legislation, government documents briefings, UK grey

Conference proceedings

- Web of Science
- SciVerse Scopus
- Medline – search for Congresses AND then combine with a topic



Trials Registers

Meta-registers of Controlled Trials – which bring together several international sources

- **ISRCTN** registry
<http://www.isrctn.com/>
- **WHO** clinical trials registry
<http://apps.who.int/trialsearch/>
- **US** register of clinical trials
<https://clinicaltrials.gov/>





Theses and Dissertations

- **CINAHL** and **PsycInfo** (Ovid) – access via databases list
- **WorldCat** dissertations and Theses (OCLC) – access via databases list
- **Senate House** – Index to Theses in Great Britain and Ireland covers >500,000 theses
- British Library's **eThos** site – <http://ethos.bl.uk>



Hand searching

Physically searching journal contents

- Can identify articles not yet included in electronic databases
- Articles or studies not indexed properly



Citation searching and reference searching

- Search the reference list or interesting papers
- See where interesting papers have been cited



Direct Contact

academia.edu

- Making direct contact – usually by email – with the authors or organisations who are experts in this field
- Authors often include their contact details in abstracts
- Can find out about ongoing or unpublished research
- Papers not on your list which authors might be aware of





Relevant internet resources

- Royal College and Society - for reports and guidance
- NICE Evidence Search - <http://www.evidence.nhs.uk/>
 - NHS search engine to locate evidence in health and social care.
- TRIP database <http://www.tripdatabase.com/>
 - clinical search tool to identify the highest quality clinical evidence for clinical practice.



Assessing the Quality

Authority

- Is the author credible?



Accuracy:

- supported by documented and authoritative references? clearly stated methodology? 'in line' with other work on the same topic

Coverage:

- Have limitations been imposed and are these stated clearly?

Objectivity:

- Is there bias?

Date

- Can't find the date? Rule of the thumb is to avoid such material

Significance

- Is it relevant? Would it enrich or have an impact on your research?



Selecting studies & managing references

- Merge and de-duplicate search results using bibliographic software (make a copy or keep a record of how many de-duped)
- Examine title and abstracts
- Best practice to retain evidence of what articles have been excluded (and potentially why)
- Retrieve full text of potentially relevant articles
- Link together multiple reports



How much is enough?

- **Funding/time**
 - No set timescale – depends on your circumstances and any funding restrictions
- **Focusing on RCTs/observational studies**
 - Widening a SR to include observational studies is likely to increase the number of results you have to sift through.
- **Personal/team knowledge – are all key known papers in your subject area retrieved in the search?**
 - Amend search if not/include further databases – you would expect key papers to be returned by a successful search strategy if indexed in the databases you are searching.



Inclusion/Exclusion Criteria

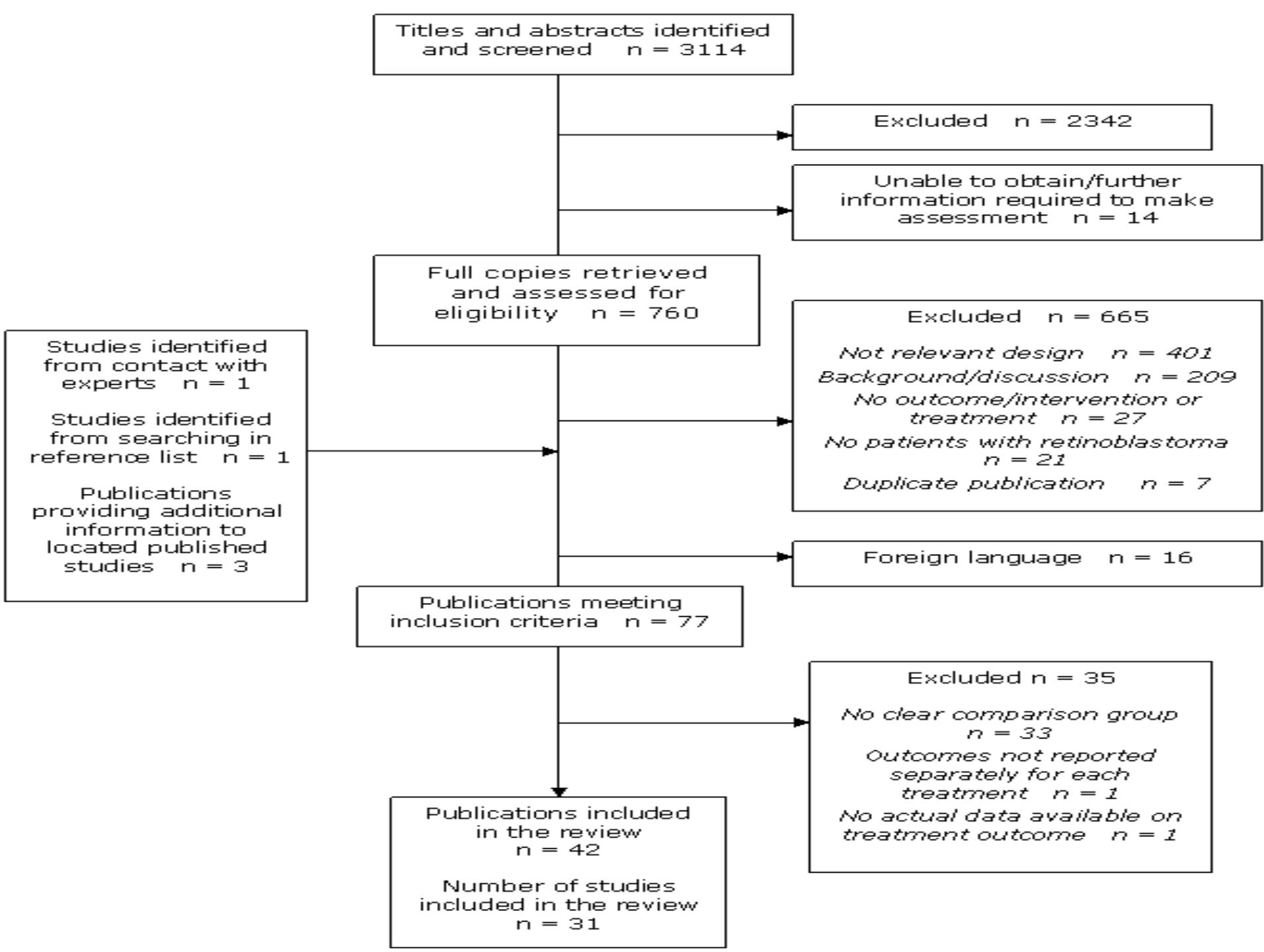
- Randomised Controlled Trials (RCTs) seen as the gold standard [e.g. required for Cochrane SRs on interventions if possible]
 - This not always possible e.g. Interventions on pregnant women
- How big was the trial?
 - Will you only include trials with >5; >10; >50; >100 active participants?
- Double-blind?
- Compared to placebo, waiting list or another treatment?



Study flow diagrams

Flow diagram should present the number of:

- unique records identified by the searches
- records excluded after preliminary screening (e.g. of titles and abstracts)
- records retrieved in full text
- records or studies excluded after assessment of full text
- studies meeting eligibility criteria for the review
- studies contributing to the main outcome
- check lists and flow diagrams available from the [PRISMA web site](#)
(PRISMA, 2009)





Documenting your search: Why?

This is crucial because:

- It forms a vital part of the systematic review in its own right
- Your searches should be able to be evaluated by other researchers and reproduced in the future



What you need to record

1. Information about the databases and interfaces searched - dates covered and when you did your search
2. Full, detailed search strategies (copied and pasted) and the number of records retrieved
3. Details of other searches - conference proceedings, hand searching, contact with experts, reference lists and citation searching and internet searching
4. You'll also need to specify the criteria you use to select trials – beyond the scope of this course!

There are examples at

http://www.york.ac.uk/inst/crd/pdf/Systematic_Reviews.pdf [Appendix 2]



Reporting Guidelines and Evaluation tools

[Equator Network](#): overview of reporting guidelines.

Links to:

- CONSORT website: <http://www.consort-statement.org/>
- PRISMA website: www.prisma-statement.org
- Meta-analyses of observational studies – MOOSE - article and proposed reporting checklist available at PMID: [10789670](https://pubmed.ncbi.nlm.nih.gov/10789670/)

Critical Appraisal Skills Programme

<http://www.casp-uk.net/>



External Resources

- CRD's Guidance for undertaking reviews in healthcare

http://www.york.ac.uk/inst/crd/index_guidance.htm

- Cochrane Handbook (for systematic reviewers)- chapter 6 relates to searching

<http://www.cochrane-handbook.org/>

<http://training.cochrane.org/>



External Resources

- Alliance for Useful Evidence
 - [Learning from Research: Systematic reviews for informing policy decisions](http://www.alliance4usefulevidence.org/), December 2013
 - This guide describes the logic of a systematic review, mixed methods reviews, the main stages of undertaking a review and some of the key issues to consider during the process.



Further information and support

- User guides on specific interfaces and databases available on your subject guide pages
<http://libguides.kcl.ac.uk/content>
- EndNote course – <https://training.kcl.ac.uk/>
- Independent learners try the new EndNote Libguide pages and workbooks
<http://libguides.kcl.ac.uk/endnote>
- For further support email libraryservices@kcl.ac.uk



Online Evaluation

Tell us what you think about your experiences

<https://www.surveymonkey.com/s/kingssys>