EndNote and Covidence: Tools for systematic searching

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1. Systematic Searching and Systematic Reviews

• Systematic reviews aim to answer a precisely defined research question, by collecting all the evidence that fits specifically defined criteria.

• To ensure quality and minimize bias, a systematic review is prepared on prior systematic, transparent and unambiguous methods\(^1,2\)

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Systematiske reviews

Definition af formål og omfang

Udarbejdelse af forskningsspørgsmål og protokol herunder bl.a.:

Udarbejdelse af inklusions- og eksklusionskriterier

Udarbejdelser af litteratursøgninger

Sortering af litteratur (Endnote, Covidence)

Ekstraktion af data og kvalitetsvurdering (Covidence kan anvendes)

Færdiggørelse af reviewet

In danish!
• The systematic literature search should answer the research question and identify "data" for data extraction

• The Cochrane Handbook has dedicated a chapter to describe requirements etc. for literature search in the preparation of Cochrane Reviews

• It might be a good idea to refer to the Cochrane Handbook when it comes to systematic literature searches (health science)
• The starting point of systematic literature search is a research question

• There are conceptualization models that can help to formulate the research question, e.g. the PICO model and the PEO model

  See more: https://www.sdu.dk/en/bibliotek/forskere/systematiske+reviews

• It clarifies which databases are suitable for the search (topic dependent) and the extent of the search for grey literature

• It clarifies whether or not to make professionally reasoned delimitations
• The research question is divided into search blocks

• Key words and free text words are identified, to be included in the final search (via the databases to be searched, as well as knowledge on the concepts used)

• The identification of search terms is an iterative process and the search will be conducted back and forth on databases used

• When the search terms are ready – the searches are conducted in the chosen databases

• The search results are exported to ENDNOTE and Covidence may be used for the further screening.
Covidence is a web-based programme, developed in cooperation with Cochrane. It is suitable for organizing your references and is eligible for:

- systematic reviews based on RCT’s
- a meta-analysis
- clinical guidelines

You can:
- use the build-in tool for literature appraisal
- export a flowchart
- Export data to RevMan

In Covidence you can invite other reviewers, and two can screen and/or evaluate the references.

Covidence is optimized to Google Chrome and Firefox.
While making your systematic searches in different databases, you can import references into **EndNote** (or another reference management tool).

Before importing references into Covidence, it is beneficial to make duplication checks in your favourite reference management tool.

For **EndNote**: Choose ”References” > ”Find Duplicates”. You can either make a manual check and click on ”Keep this Record” or you can do it automatically by clicking on ”Cancel”, right click and delete duplications by clicking on ”Move references to trash” from the list in ”Duplicate References”.

*Import of references into Covidence is in paragraph 7.*
4. Make an account

You can make an account on: www.covidence.org In the free version you can import 500 references.

If you have more than 500 references, you can get access to the extended Covidence by e-mail approval: https://www.covidence.org/organizations/50dWQ/signup. You must use your SDU e-mail.

Before you access the paid version (e-mail approved) please use the free version!

*If you are working on the free version, and will continue in the extended version, contact the support: https://support.covidence.org/help click on the question mark and ask for "migrate my existing review to the institutional account".*

If you are an OUH employee, you must contact the License office: e-tss@bib.sdu.dk, and they will help you to get access. Remember to inform on the name of your review!
For SDU Students and employees at SDU og OUH, the extended version is free!
5. Create a review

Click on "Start a new review" and name it. You can make one for free.

Click on "Next". You can now invite one reviewer more. If you have the payed version, you can invite several reviewers. Inviting later in the proces is under "Settings". Only two reviewers can make choices!

In "Settings" and "Team Settings", you can, for each review, choose which reviewer must take part of the screening proces and the extraction proces, but max. 2.
6. Inclusion- or exclusion criterions

Insert your inclusion- or exclusion criterions. Insert them as Keywords.
6. Inclusion- or exclusions criterions

While screening in "Title/Abstract" or Full Text screening, you can see your criterions by choosing "Show criteria". By clicking on "Show highlights" you can see your inclusion criterions marked with Green or exclusions marked with red.
7. Import references into Covidence

References can be downloaded from EndNote or PubMed XML or RIS text format. The RIS format is the best choice.

References can be imported from reference management tools e.g. EndNote, Zotero, Refworks or Mendeley.

If you are exporting from EndNote, you must mark the relevant references and click on "File" and "Export". Choose the File Format "Text File" (*.txt) and the output style "Refman (RIS) Export", finally click on ”Save”.

In Covidence choose the review, and click on "Import ". Choose ”Import from File” and choose to ”Import into: Screen”.

References can be imported using the EndNote or PubMed XML format. Alternatively, references can be imported using a text file formatted according to either the CRS or RIS text formats.
8. Duplication check in Covidence

References imported into Covidence, will also be checked for duplicates, but it is not optimal!

Duplicates will be placed in “Import” and ”Manage imports”. Click on ”Check duplicates”, and Covidence original reference and duplicates will be shown side by side. If not a duplicate, Click on ”Not a duplicate”.

Despite the duplication check, duplicates can still occur.
# Review Summary

## Import references
- view all duplicates
- [Import](#)

## Title and abstract screening
- [0 irrelevant](#)
- [0 studies to select](#)

## Full text screening
- [0 excluded](#)
- [0 studies to select](#)

## Extraction
- [0 extracted](#)
- [0 studies to extract](#)
9. Title-Abstract Screening

In "Title-Abstract-Screening" all the imported references are placed.

Make your first screening by reading titles and abstracts and click on "Yes", and it moves to "Full Text Screening", or "Maybe" moves to "Full Text Screening" (add a note) By choosing "No" it will be placed into "Irrelevant".

When the sorting is done, all the selected references are placed in "Full Text Screening".
10. Full Text Screening

In the full text screening process, while reading the chosen references, you must include or exclude references by marking "Include" or "Exclude".

You can add comments in "Add a note" and you must choose a reason for the exclusion.
11. Importing full text (PDF)

Finding full text of the selected studies, you can beneficially use **EndNote**. To export references from Covidence, use “Export studies”. Choose here “Full Text Review” and “Reference Manager” is EndNote. Download the file.

In EndNote import is in ”File”, ”Import” and ”File”, Import option is ”Endnote Generated XML”. Mark the references for full text searching and click on ”References” and ”Find Full Text”.

Doing this when your are home, you must add the adreses below from ”Preferences” in ”Edit”. In here it is in ”Find full text”. OUH employees only Open URL: [http://MV8RJ3PG6A.search.serialssolutions.com](http://MV8RJ3PG6A.search.serialssolutions.com)
SDU Open URL [http://ul2nb3kn6e.search.serialssolutions.com/](http://ul2nb3kn6e.search.serialssolutions.com/)

PDF’s will be placed in ”My EndNote Library.Data” > ”PDF”.
References without PDF attachments, must be searched for manually in the databases or ordered at your local library.
11. Full Text Screening

In Covidence you can add the PDFs one at a time. The Bulk function is only an option in the payed extended version of Covidence! But it is a poor solution.

From "Full Text screening", click on the references and "Add Full text". Click on "Choose a file" and add the PDF. When Covidence shows an OK sign, you must click on "Finished".

Links and URL’s can also be added to the references. BUT it is also a possibility to keep the PDFs in EndNote, and read the studies in here. In EndNote you can add notes to the studies.
We advice you NOT to upload references licensed from the SDU library books, book chapters etc. into Covidence. It might be illegal due to copyright regulations.

Open access review are OK

Be aware NOT to share full text references (and other licensed material) with persons not SDU students or employees at SDU or OUH.
12. Solving conflicts among reviewers

If you are more reviewers sorting the studies in "Title-Abstract Screening" and "Full Text Screening", you will notice, that if you agree e.g. if both reviewers has chosen to include a study, this will be placed in the next level in the proces.
Of you disagree, the study will be placed in "Resolve conflicts". When you have made a final decision, the study will will be placed in the next level.

In the proces of screening studies, both reviewers must screen all studies on each level. Not until both reviewers has screened all studies, and has agreed on their voting, they can continue on the next level in the screening proces.
If one of the reviewers lacks screening some of the studies, these will be placed in "Awaiting other reviewer".
13. Looking for references

You can look for specific references.

To find a reference, you can write words from the title or an author name in the field "Find a study".

You can choose "Filter" if you want more specifications. Need to see all references again, click on "Clear".
13. Looking for choices and activity

If you need to see your choices, and reasons, you can always click on "View history" for each reference.
14. Undo a selection

If wanting to undo a selection, you can always move the references backwards:
from "Full Text Screening" to "Title-Abstract Screening" or from "Extraction" to "Full Text Screening".

You can move:
from "Irrelevant" to "Title-Abstract Screening" or from "Excluded" to "Full Text Screening"
15. Extraction/ Literature appraisal tool

In **Extraction** all the included references is placed.

In here you can use a costumized template or the built-in Cochrane tool, to validate for quality assessment, and risk of bias. You can compare your validations with another reviewer. The tool is qualified to RCT studies. **Quality assessment should be conducted by two independent reviewers.**

The quality assessment can be accomplished by other tools outside Covidence, e.g. AMSTAR. Other quality appraisal tools see: [https://www.sdu.dk/en/bibliotek/forskere/systematiske+reviews](https://www.sdu.dk/en/bibliotek/forskere/systematiske+reviews)
Purpose for the extraction

• To describe each study consequently
• To draw data in the same way for each study
• To allow quality assessment, which is possible to interpret
• To make a synthesis possible, and not look at each study afterwards
15. Extraction/ Literature appraisal tools

Click on "Start" for the "Quality assessment".

Create a domain

Name

Description
the description will help reviewers understand the criteria for this domain

Can apply to individual outcomes?

Save
15. Extraction/ Literature appraisal tool

Start "Data extraction" and fill out the template, you can copy-paste parts of the text from The PDFs, and make notes directly in the PDF.

The content of the template is:

• Baseline caracteristica
• Study designs
• Methods
• Population
• Interventions
• Comparisons
• Outcomes

Remember to click on "save" every time you have finished a subset of the template.

When completely finished, click on "complete".
15. Extraction/ Literature appraisal tool

It is possible to compare data from the extraction of the two reviewers. Finally consensus must be achieved.
16. Export data

You can proceed your analysis by exporting data to RevMan (Review Manager). Click on "Export" and "Revman".

You can choose "Prisma", and a flow chart of the selection process is shown.

You can use an editable Prisma from www.prisma-statement.org
16. Export references

In the end, you can choose to create an EndNote library, and import the selected and included studies. Above from that the Endnote library must contain references to chapters for: introduction, methods, discussion etc.

Exporting references from Covidence is in “Export”. You must choose the “Included” references and “Reference Manager” is “EndNote”. Download the file. And Import it into your EndNote library.
17. Know more on Covidence

https://www.youtube.com/ Seach for Covidence

Access on E-ressources and Covidence
e-tss@bib.sdu.dk
phone 6550 2632

Guidance, FAQ and support on Covidence
https://support.covidence.org/help

Guidance on Systematic Reviews or metaanalysis
https://cebmo.dk/
18. Relevant references

https://campbellcollaboration.org/


https://training.cochrane.org/handbook/current