

Systematic reviews and meta-analysis Autumn 2022

Welcome to the course “Systematic review and meta-analyses”. We look forward to having you on the course!

In the following information packet, you will find details about the course organization, content, assignments, exam, and time expectations. Please read it carefully and please make sure you note all the dates.

Organiser: NRS GH at NTNU in collaboration with NIPH

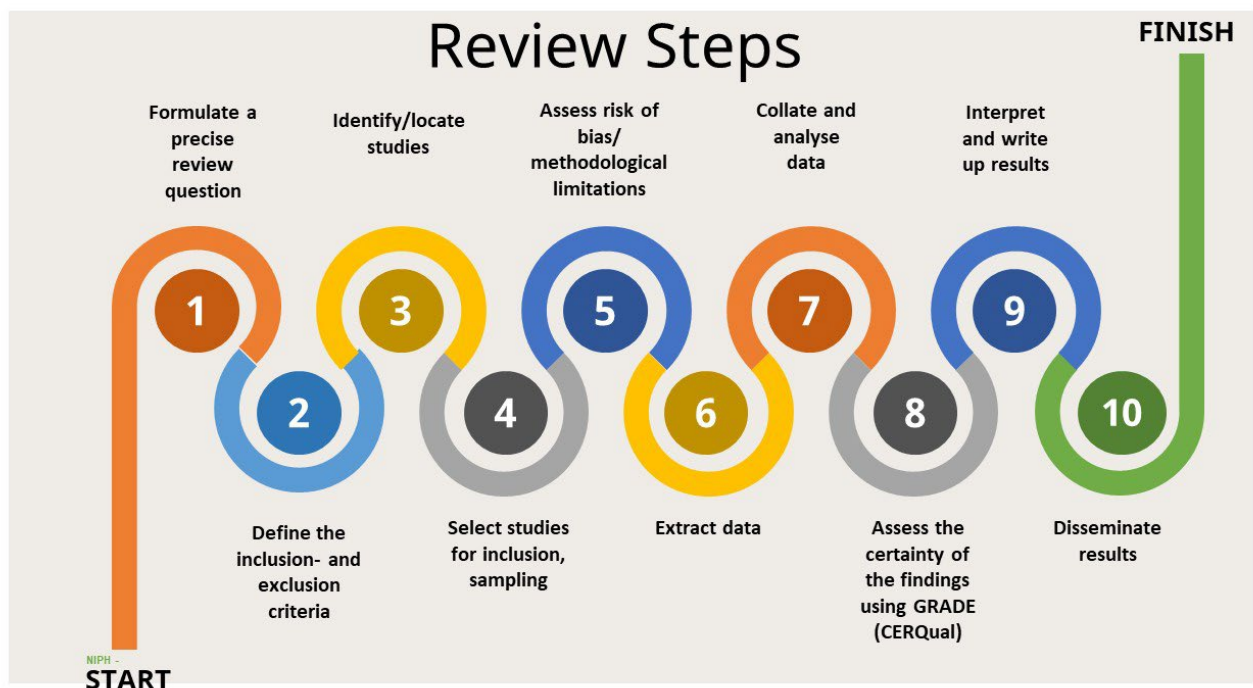
Course leaders: Heather Ames (NIPH) (heather.ames@fhi.no) and Lillebeth Larun (NIPH) (lillebeth.larun@fhi.no)

NTNU contact: Elin Dvergsdal (elin.y.dvergsdal@ntnu.no)

Website: <https://www.ntnu.edu/nrsgh/nrs8002>

Learning objectives:

The course aims to introduce PhD students and post-doc researchers to systematic review methodology and familiarise them with the process of conducting a systematic review. The focus will be on systematic reviews of interventions, but reviews addressing qualitative research, prevalence, prognostic, and diagnostic questions will also be presented. By the end of the course the students will have written a protocol for a systematic review on a question of their choice. The course is built around the steps for conducting a systematic review.



Course description and ECTS credits:

The course consists of webinars, digital resources, course work, assignments, three-days of interactive teaching and the possibility to submit an exam. A pass on the exam and the two assignments will give 5 ECTS credits. **You will need to set aside time to complete the assignments and write the exam, the estimated time for five credits is 125 hours which includes all the work to**

be done. To get the most out of the course we encourage full participation in the group work and teaching days, and you must attend at least 80 % of the group work and teaching days to be able to submit the exam.

The kick-off webinar, the three-day teaching as well as the supervision are digital and you will receive a Teams link closer to the date. **For the small group work meetings, you are supposed to organise the digital meetings yourselves using Teams, Zoom or another preferred video conference tool.** If you would like the supervisor to come in at times, please invite him/her as well.

All times given are in CEST which is the time in Oslo, Norway. This Time Zone Converter <https://www.timeanddate.com/worldclock/converter.html> might be helpful.

The course is organised around one group assignment, one individual assignment and an exam. All three must be submitted and given a pass to pass the course. You will have access to supervision with a search specialist (1 hour) and a systematic review specialist (1 hour) after the three-day teaching session before your exam is due.

August 24 th	Kick off seminar	9:00-14:00
August 31 st	Group work 1	9:00-12:00
September 7 th	Group work 2	9:00-12:00
September 14 th	Group work 3 and Group assignment due	9:00-12:00
September 19 th	Group work 4	9:00-12:00
September 21 st	Individual assignment due	
September 26 th -28 th	Interactive teaching seminar	9:00-17:00
September 29 th - 31 st of October	Supervision with a search specialist (1 hour) and a systematic review specialist (1 hour)	
October 31 st	Exam due	
December 5 th	Exam results given	

The course syllabus is a combination of reading materials, online learning modules and small group work followed by three interactive teaching days September 26th-28th, see the end of this document for the reading list.

Detailed course information

*Can change based on student needs and other circumstances

Date	Activity	Assignment
Admission to the course	Write a research question in a PICOS format	<ul style="list-style-type: none"> Submit draft research question and type of review (for example: effect, qualitative evidence synthesis, prevalence etc) to heather.ames@fhi.no by August 15th.
Pre course start	Familiarise yourself with course outline and course content	

24 August	Kick-off seminar 9:00-14:00 CEST	<ul style="list-style-type: none"> • Start investigating the different types of systematic reviews and core question types • Introduction to searching • Question formation
24 August-25 September	Complete online learning resources and reading individually	
31 August	<u>Small group work 1</u> 9:00-12:00 CEST Review question and type of review (3 hours) (Participant lead)	A zoom room will be provided for August 31st and supervisor will be available between 10:00 and 11:00 CEST.
7 September	<u>Meeting with a librarian and small group work 2</u> 9:00-12:00 CEST Discuss information sources and search strategy (3 hours) (Participant lead)	Introduction to the search process for group 1 and 2 at 10:00 to 10:45 and for group 3 and 4 from 11:00 to 11:45 Go through a search strategy for a systematic review. A zoom room will be provided for September 7th .
14 September	<u>Small group work 3:</u> 9:00-12:00 CEST Fill in group work assignment table and discuss (3 hours) (Participant lead)	Group assignment due A zoom room will be provided for September 14th and supervisor will be available between 10:00 and 11:00 CEST.
19 September	<u>Small group work 4</u> 9:00-12:00 CEST Discuss challenges you are having with your protocol (3 hours) (Participant lead)	A zoom room will be provided for September 19th and supervisor will be available between 10:00 and 11:00 CEST.
21 September		Individual assignment due
26-28 September	<u>Seminar building on the online modules and your input from the group work (Teaching days)</u>	
29 September-31 October	Work on individual protocols	It is always a good idea to meet with your small group to discuss challenges and receive feedback. Individual supervision (approximately one hour with search librarian and one hour with SR specialist). It is strongly encouraged to contact your supervisor and set a date for supervision within the first week. The search specialist will send out a doodle invitation.
31 October		Submit exam (SR protocol)
5 December		Receive grade

Assignment information:

Group assignment:

Complete the table in appendix 1. In the table, after discussing with the group and reaching a consensus you will write in the type of review and core question for each group member with justification along with other information. You will also be asked to reflect on the required reading and online learning and discuss areas of the systematic review process where you feel you need more clarification, understanding or support. The responses to this assignment will shape the content of the in-person teaching.

Individual assignment:

You will submit a draft of your systematic review protocol in the simplified template provided for intervention reviews, appendix 2, maximum two pages.

Exam information:

Acceptable protocols are those for full systematic reviews of recognised question types and scoping reviews. If the student chooses to write a protocol for a scoping review, they must show understanding of Risk of Bias or methodological limitations and data analysis/synthesis by presenting their hypothetical plans in an appendix. The template used for your individual assignment, appendix 2, can also be used for the exam. The exam should be maximum 10 pages, excluding references and appendixes.

The exam will be assessed using the [PRISMA checklists](#). The assessment is pass or not pass. If you receive a pass this does not mean that your protocol is ready to be published but that you have understood the course material.

If your protocol does not pass, you will be given the opportunity to adjust and resubmit. You will have access to your supervisor for a further hour before resubmission.

Schedule for seminar for NRS8002 Systematic review, 2022

September 26 th	September 27 th	September 28 th
Types of systematic reviews Literature search	Selection of articles, screening, and data extraction Risk of bias Synthesis and meta- analysis	GRADE Protocol development and team composition Peer review of protocols
09.00 -10.45 Types of systematic reviews and how to frame the question (LL, HA) 11:00-12:00 Asking a specific focused question (HA, LL))	09.00 -10.45 Screening, study selection, data extraction, software, and machine learning (LJL, UG, HA) 11:00 – 12.00 Risk of Bias (AF)	09.00 -10.00 Search follow up (MJ, IK) 10:15-12:00 GRADE and GRADE CERQual (LL, HA)
12.00 -12.30 Lunch	12.00 -12.30 Lunch	12.00 -12.30 Lunch
12.30 - 15.00 Search workshop (MJ, IK) 15:15-16:30 Fine tuning of research questions and selection criteria (HA, LL, LJL, UG)	12.30 -15.00 How to decide what data analysis approach to use. Part 1-quantitative and qualitative data (LL, HA) 15:00-16:30 Group 1: Quantitative data (LL) Group 2: Qualitative data and scoping reviews (HA)	12.30 -13.00 How to present results (LL, HA) 13.15 – 14.45 Protocol development and team experience and composition (LL) 14:45-15:00 Exam and supervision information (LL) 15:00-16:00 Supervisors available for questions (HA, LL, LJL, UG)
LL: Lillebeth Larun, lillebeth.larun@fhi.no HA: Heather Ames, heather.ames@fhi.no LJL: Lars Jørun Langøien, LarsJorun.Langoiien@fhi.no UG: Unni Gopinathan, unni.gopinathan@fhi.no	MJ: Marit Johansen marit.johansen@fhi.no IK: Ingvild Kirkehei ingvild.kirkehei@fhi.no AF: Atle Fretheim atle.fretheim@fhi.no	

The schedule will be flexible to focus on and accommodate the types of reviews that the registered participants plan on conducting. Feedback to the course schedule is part of the small group assignment presented above. Please fill in this part of the assignment accordingly so that the course best reflects the participants needs.

Required online learning resources:

Cochrane interactive learning module 1. <https://training.cochrane.org/interactivelearning>

Required reading

- Muka, Taulant, Glisic, Marija, Milic, Jelena, Verhoog, Sanne, Bohlius, Julia, Bramer, Wichor, Chowdhury, Rajiv, & Franco, Oscar H. (2020). A 24-step guide on how to design, conduct, and successfully publish a systematic review and meta-analysis in medical research. *European Journal of Epidemiology*, 35(1), 49–60. <https://doi.org/10.1007/s10654-019-00576-5>
- Moher, David, Shamseer, Larissa, Clarke, Mike, Ghersi, Davina, Liberati, Alessandro, Petticrew, Mark, Shekelle, Paul, & Stewart, Lesley A. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic Reviews*, 4(1), 1–1. <https://doi.org/10.1186/2046-4053-4-1>

- Boland A, Cheery G, Dickson R. Doing a systematic review: A student's guide (2nd edition) SAGE Publishing . <https://uk.sagepub.com/.en-gb/eur/doing-a-systematic-review/book251308#description>
 - With online resources available here: <https://bit.ly/3dQL83G>

Literature searching

- University of Leeds. Literature searching explained. Available from: https://library.leeds.ac.uk/info/1404/literature_searching/14/literature_searching_explained/2
- Thompson, Emily A, Gann, Laurissa B, & Cressman, Erik N. K. (2019). Learning to successfully search the scientific and medical literature. *Cell Stress & Chaperones*, 24(2), 289–293. <https://doi.org/10.1007/s12192-019-00984-2>

Optional online resources

General guidance

- Cochrane Handbook for Systematic Reviews of Interventions. <https://training.cochrane.org/handbook>
- Gough D, Oliver S, Thomas J. An introduction to systematic reviews. Sage; 2017.
- Cochrane interactive learning. <https://training.cochrane.org/interactivelearning>. Access possible if your institution is a member or you can contribute to the work to get membership. <https://www.cochrane.org/join-cochrane/students>

Framing the question

- Using a framework to structure your question from City University of London https://libguides.city.ac.uk/postgraduate_research/frameworks
- Introduction to Systematic Review and Meta-Analysis from Johns Hopkins University via Coursera. Module 2- gives an overview of how to decide on the type and scope of your question and helps you operationalise it. <https://www.coursera.org/learn/systematic-review>

Deciding on a type of review

- Munn, Zachary, Stern, Cindy, Aromataris, Edoardo, Lockwood, Craig, & Jordan, Zoe. (2018). What kind of systematic review should I conduct? A proposed typology and guidance for systematic reviewers in the medical and health sciences. *BMC Medical Research Methodology*, 18(1), 5–5. <https://doi.org/10.1186/s12874-017-0468-4>
- Munn, Zachary, Peters, Micah D J, Stern, Cindy, Tufanaru, Catalin, McArthur, Alexa, & Aromataris, Edoardo. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 18(1), 143–143. <https://doi.org/10.1186/s12874-018-0611-x>

Literature searching

Searching for systematic reviews video series by Lien Nguyen (Norwegian with English subtitles):

- Video 1: Introduction <https://www.youtube.com/watch?v=i7gg759AtPE> (2:29)
- Video 2: PICO https://www.youtube.com/watch?v=r_9o9OTXs8I (3:10)
- Video 3: Search techniques <https://www.youtube.com/watch?v=4R3Nsj-P7ic> (4:10)
- Video 4: From PICO to search boxes https://www.youtube.com/watch?v=KjbeODB8_0I (3:23)

Study selection

- What's new. Part 2: Handbook Chapter 4 - guidance on selecting studies.
<https://www.youtube.com/watch?v=sV4sGNWIIlBQ>

Quantitative evidence synthesis

Prognostic research

Design: Often cohort studies.

Question: PO/PEO/PICO https://libguides.city.ac.uk/postgraduate_research/frameworks

RoB: Lack agreed standards for reporting and critical appraisal, but one example is the Quality In Prognosis Studies tool (QUI-PS tool) . https://www.google.com/search?q=QUIPS-+Quality+In+Prognosis+Studies+tool&rlz=1C1GCEA_enNO933NO933&oq=QUIPS-+Quality+In+Prognosis+Studies+tool&aqs=chrome.69i59j0i22i30.1045j0j7&sourceid=chrome&ie=UTF-8

Analysis: Large variability in the use of analytic methods

Examples

- Altman, Douglas G. (2001). Systematic reviews of evaluations of prognostic variables. *BMJ*, 323(7306), 224–228. <https://doi.org/10.1136/bmj.323.7306.224>
- Hemingway, H, Croft, Peter, Perel, Pablo, Hayden, Jill, Abrams, D, Timmis, Adam, Briggs, Anew, Udumyan, Ruzan, Moons, Karel, Steyerberg, Ewout, Roberts, Ian, Schroter, Sara, Altman, Douglas, Riley, Richard, Brunner, N, Hingorani, Aroon, Kyzas, Panayiotis, Malats, Núria, Peat, G, Windt, Daniëlle. (2013). Prognosis research strategy (PROGRESS) 1: A framework for researching clinical outcomes. *BMJ. British Medical Journal (International Ed.)*, 346. <https://doi.org/10.1136/bmj.e5595>
- PROGRESS (PROGnosis REsearch Strategy) framework– how to conduct prognostic research. <https://www.prognosisresearch.com/progress-framework>

Diagnostic and accuracy research

Design: Randomised clinical trials (RCTS)

Question: PICO where C is a Reference test (gold standard)

RoB: QUADAS-2: A Revised Tool for the Quality Assessment of Diagnostic Accuracy Studies https://www.acpjournals.org/doi/full/10.7326/0003-4819-155-8-201110180-00009?rfr_dat=cr_pub++0pubmed&url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org

Analysis: Large variability in the use of analytic methods

GRADE: Grade handbook, Chapter 7. The GRADE approach for diagnostic tests and strategies <https://gdt.gradeapro.org/app/handbook/handbook.html#h.f7lc8w9c3nh8>

Examples:

- Smedslund, Giske, Fleitscher, & Brurberg. (2015). Screening tools for cognitive function and driving. 2015 Norwegian Institute of Public Health <http://hdl.handle.net/11250/2475813>
- Arentz-Hansen, H. (2014). Determination of fetal rhesus D status from maternal plasma of rhesus negative women. Norwegian Institute of Public Health. <https://www.ncbi.nlm.nih.gov/books/NBK464905/>

Effectiveness research

Design: Randomised clinical trials (RCTS)

Question: PICO https://libguides.city.ac.uk/postgraduate_research/frameworks

RoB: Risk of Bias 2 (RoB 2) tool <https://methods.cochrane.org/risk-bias-2> and see also Cochrane handbook Chapter 8: Assessing risk of bias in a randomized trial https://folkehelse.sharepoint.com/:w:/r/sites/1689/_layouts/15/Doc.aspx?sourcedoc=%7B660F8CD3-7842-4EC3-B67E-727F5AFB6C15%7D&file=Information%20packet%20given%20on%20course%20acceptance.docx&ac

[tion=default&mobileredirect=true](#)

Analysis: Meta analyses or narrative summary see:

Cochrane Handbook Chapter 10: Analysing data and undertaking meta-analyses

<https://training.cochrane.org/handbook/current/chapter-10> or

Cochrane handbook Chapter 12: Synthesizing and presenting findings using other methods

[https://folkehelse.sharepoint.com/:w:/r/sites/1689/_layouts/15/Doc.aspx?sourcedoc=%7B660F8CD3-7842-4EC3-B67E-](https://folkehelse.sharepoint.com/:w:/r/sites/1689/_layouts/15/Doc.aspx?sourcedoc=%7B660F8CD3-7842-4EC3-B67E-727F5AFB6C15%7D&file=Information%20packet%20given%20on%20course%20acceptance.docx&action=default&mobileredirect=true)

[727F5AFB6C15%7D&file=Information%20packet%20given%20on%20course%20acceptance.docx&action=default&mobileredirect=true](https://folkehelse.sharepoint.com/:w:/r/sites/1689/_layouts/15/Doc.aspx?sourcedoc=%7B660F8CD3-7842-4EC3-B67E-727F5AFB6C15%7D&file=Information%20packet%20given%20on%20course%20acceptance.docx&action=default&mobileredirect=true)

GRADE: GRADE handbook <https://gdt.gradeapro.org/app/handbook/handbook.html#h.svwngs6pm0f2>

Examples

Cochrane Library <https://www.cochranelibrary.com/>

Prevalence research

Design: cross sectional studies

Question: CoCoPop https://libguides.city.ac.uk/postgraduate_research/frameworks

RoB: Lack agreed standards for critical appraisal, but one example is:

Hoy, Damian, Brooks, Peter, Woolf, Anthony, Blyth, Fiona, March, Lyn, Bain, Chris, Baker, Peter, Smith, Emma, & Buchbinder, Rachelle. (2012). Assessing risk of bias in prevalence studies: modification of an existing tool and evidence of interrater agreement. *Journal of Clinical Epidemiology*, 65(9), 934–939. <https://doi.org/10.1016/j.jclinepi.2011.11.014>

Analysis: Prevalence estimates will often vary between studies; normal distribution is not always to be expected

Examples:

- Brurberg, Kjetil Gundro, Fønhus, Marita Sporstøl, Larun, Lillebeth, Flottorp, Signe, & Malterud, Kirsti. (2014). Case definitions for chronic fatigue syndrome/myalgic encephalomyelitis (CFS/ME): a systematic review. *BMJ Open*, 4(2), e003973–e003973. <https://doi.org/10.1136/bmjopen-2013-003973>
- Johnston, Samantha, Brenu, Ekuwa W, Staines, Donald, & Marshall-Gradisnik, Sonya. (2013). The prevalence of chronic fatigue syndrome/ myalgic encephalomyelitis: a meta-analysis. *Clinical Epidemiology*, 5, 105–110. <https://doi.org/10.2147/CLEP.S39876>

Etiology research – risk factors and causes

Design: Cohort or case control studies.

Question: PICO or other <https://tees.ac.uk/lis/learninghub/cinahl/pico.pdf>

RoB: Additional questions regarding selection of participants, matching and adjustment for confounding to assess risk of bias adequately.

Critical appraisal tools for example:

ROBINS-I (“Risk Of Bias In Non-randomised Studies - of Interventions”)

[https://folkehelse.sharepoint.com/:w:/r/sites/1689/_layouts/15/Doc.aspx?sourcedoc=%7B660F8CD3-7842-4EC3-B67E-](https://folkehelse.sharepoint.com/:w:/r/sites/1689/_layouts/15/Doc.aspx?sourcedoc=%7B660F8CD3-7842-4EC3-B67E-727F5AFB6C15%7D&file=Information%20packet%20given%20on%20course%20acceptance.docx&action=default&mobileredirect=true)

[727F5AFB6C15%7D&file=Information%20packet%20given%20on%20course%20acceptance.docx&action=default&mobileredirect=true](https://folkehelse.sharepoint.com/:w:/r/sites/1689/_layouts/15/Doc.aspx?sourcedoc=%7B660F8CD3-7842-4EC3-B67E-727F5AFB6C15%7D&file=Information%20packet%20given%20on%20course%20acceptance.docx&action=default&mobileredirect=true)

The Newcastle-Ottawa Scale (NOS) for assessing the quality of non-randomised studies in meta-analyses [file:///C:/Users/lill/Downloads/appb-fm4%20\(1\).pdf](file:///C:/Users/lill/Downloads/appb-fm4%20(1).pdf)

Analysis: Paired comparison in exposed versus unexposed individuals

Examples

- Gilbert, R., Salanti, G., Harden, M., & See, S. (2005). Infant sleeping position and the sudden infant death syndrome: systematic review of observational studies and historical review of recommendations from 1940 to 2002. *International journal of epidemiology*, 34(4), 874–887. <https://doi.org/10.1093/ije/dyi088>

- Søvik, S., Isachsen, M. S., Nordhuus, K. M., Tveiten, C. K., Eken, T., Sunde, K., Brurberg, K. G., & Beitland, S. (2019). Acute kidney injury in trauma patients admitted to the ICU: a systematic review and meta-analysis. *Intensive care medicine*, 45(4), 407–419. <https://doi.org/10.1007/s00134-019-05535-y>
- Sterne J A C, Savovič J, Page M J, Elbers R G, Blencowe N S, Boutron I et al. RoB 2: a revised tool for assessing risk of bias in randomised trials *BMJ* 2019; 366 doi:<https://doi.org/10.1136/bmj.l4898>
- Joanna Briggs Institute. Critical Appraisal Tools. Available from: <https://jbi.global/critical-appraisal-tools>

Analysis

Narrative synthesis

Synthesis without Meta-Analysis (SWiM) webinars:

- Narrative synthesis' of quantitative effect data in Cochrane reviews: current issues and ways forward. Available at: <https://training.cochrane.org/resource/narrative-synthesis-quantitative-effect-data-cochrane-reviews-current-issues-and-ways>
- Reporting guideline for synthesis without meta-analysis. Available from: <https://training.cochrane.org/resource/reporting-guideline-synthesis-without-meta-analysis-swim>

Meta-analysis

- Summary Measures Used in Systematic Reviews: <https://www.youtube.com/watch?v=o0CMIXUAQCY>
- Fixed Effects and Random Effects Models: <https://www.youtube.com/watch?v=Vb0GvznHf8U>
- How to Interpret a Forest Plot: <https://www.youtube.com/watch?v=py-L8DvJmDc>
- What is Heterogeneity? <https://www.youtube.com/watch?v=KSKCTXciGjI>
- Overview of Subgroup Analysis: <https://www.youtube.com/watch?v=1VbRzislOmc>
- RevMan Tutorial - Entering Data For Meta-Analysis: <https://www.youtube.com/watch?v=uLDbJixeQmY&list=PLgp17bk2nACMassfBMJRbfSSvpTfMgLxu&index=10>

GRADE

- Siemieniuk R GG. What is GRADE. <https://bestpractice.bmj.com/info/toolkit/learn-ebm/what-is-grade/>. Published 2021
- Cochrane. GRADE Approach. Cochrane Training Web site. <https://training.cochrane.org/grade-approach>. Published 2021.
- Systematic Reviews and Meta-Analyses: Part 4 - Assessing Certainty of Evidence: The GRADE Approach. <https://www.youtube.com/watch?v=jpp6OTWXSf8>

Qualitative evidence synthesis

- Kate Flemming and Jane Noyes. (2021). Qualitative evidence synthesis: Where are we at? *International Journal of Qualitative Methods*: 20, 1-13. <https://journals.sagepub.com/doi/10.1177/1609406921993276>
- Cochrane Qualitative Evidence Synthesis (QES): Learning Live webinar series: <https://training.cochrane.org/qes-learning-live-webinar-series>

- Undertaking a qualitative evidence synthesis to support decision-making in a Cochrane context. <https://training.cochrane.org/resource/undertaking-qualitative-evidence-synthesis-support-decision-making-cochrane-context>
 - Part 1: Qualitative research and how it fits into systematic reviews
 - Part 2: How to choose a method for qualitative evidence synthesis
 - Part 3: Framework synthesis, thematic synthesis, meta-ethnography
 - Part 4: Confidence in qualitative evidence and reporting a qualitative evidence synthesis
- Cochrane SA Webinar: Formulating & refining questions for a QES. https://www.youtube.com/watch?v=adP_l35cgds
- GRADE CERQual Webinar. <https://quests.ie/dr-heather-ames-discusses-application-grade-cerqual-qualitative-evidence-synthesis-quests-webinar/>
- Lewin, Simon, Bohren, Meghan, Rashidian, Arash, Munthe-Kaas, Heather, Glenton, Claire, Colvin, Christopher J, Garside, Ruth, Noyes, Jane, Booth, Andrew, Tunçalp, Özge, Wainwright, Megan, Flottorp, Signe, Tucker, Joseph D, & Carlsen, Benedicte. (2018). Applying GRADE-CERQual to qualitative evidence synthesis findings-paper 2: how to make an overall CERQual assessment of confidence and create a Summary of Qualitative Findings table. *Implementation Science : IS*, 13(Suppl 1), 10–10. <https://doi.org/10.1186/s13012-017-0689-2>

Scoping reviews

- Best practices for and reporting of scoping reviews <https://www.youtube.com/watch?v=5NtTSiCD580&t=14s>
- Updated methodological guidance for the conduct of scoping reviews- https://journals.lww.com/ijebh/Fulltext/2021/03000/Updated_methodological_guidance_for_the_conduct_of.2.aspx?context=LatestArticles&casa_token=8Rr12Lt2KecAAAAA:PMr1RHHH5-dGJ8_pWljZS6xrmerRzyf4TsSzabcKtharOv4mNgQojp9JfKnB0QzW00tyrGM6aZ5Qdb82vmES0ogYYg
- JBI manual for evidence synthesis: Chapter 11: Scoping reviews <https://wiki.jbi.global/display/MANUAL/Chapter+11%3A+Scoping+reviews>

Systematic review tools

Screening tools

- Rayyan <https://www.rayyan.ai/> Rayyan Resources. University of Oslo Library. <https://www.ub.uio.no/english/courses-events/courses/other/medicine-rayyan/resources.html>
- EPPI-Reviewer 4 Software for Research Synthesis. [https://epi.ioe.ac.uk/CMS/Default.aspx?alias=epi.ioe.ac.uk/cms/er4&EPPI-Reviewer User Manual.](https://epi.ioe.ac.uk/CMS/Default.aspx?alias=epi.ioe.ac.uk/cms/er4&EPPI-Reviewer%20User%20Manual.pdf) https://epi.ioe.ac.uk/CMS/Portals/35/ER4_8_0%20user%20manual.pdf
- Covidence <https://www.covidence.org/>
Covidence user guide. University of South Australia. Available from: <https://guides.library.unisa.edu.au/SystematicReviews/Covidence>

Analysis

- RevMan <https://training.cochrane.org/online-learning/core-software-cochrane-reviews/revman>

RevMan 5.3 User guide. Cochrane Training.

https://training.cochrane.org/sites/training.cochrane.org/files/public/uploads/resources/downloadable_resources/English/RevMan_5.3_User_Guide.pdf

- NVivo <https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home>
User manuals for NVivo. University of Oslo.
<https://www.uio.no/english/services/it/research/data-collection-and-analysis/nvivo/about.html>

GRADE and GRADE CERQual

- GRADEpro <https://grade.pro/>
- Interactive Summary of Qualitative Findings (ISoQ) <https://isoq.epistemonikos.org/>

Referencing

- EndNote etc (referencing software) <https://www.alfasoftware.com/en/products/reference-tools/endnote.html>
EndNote: Help Guides, Getting Started Guides and Manuals. Clarivate.
https://support.clarivate.com/Endnote/s/article/EndNote-Help-Guides-Getting-Started-Guides-and-Manuals?language=en_US
- Zotero (free referencing software) <https://www.zotero.org/>
Zotero quick start guide. Zotero.org. https://www.zotero.org/support/quick_start_guide

Appendixes

Appendix 1 Group assignment NRS8002 Systematic review

Due: September 14th, 2022

Task 1 instructions:

- Each member of the group is to fill in one line of the table after presenting and discussing their review question with the group

Name	Review Type	Review question	PICO/PEO/SPIDER/PerSPE(C)TIF/PCC (etc.)	Suggested databases and search words

Task 2 instructions:

- Now that you have completed the required learning, discuss areas of the systematic review process where you feel you need more clarification, understanding or support. Write these into the box below. The responses to this task will shape the content of the in-person teaching.

Appendix 2 Individual assignment and exam NRS8002 Systematic review

Due:

- First draft September 21st, 2022: Maximum 2 pages. Can be in bullet point form
- Completed assignment October 31st, 2022; Maximum length 10 pages excluding references and appendixes

Please refer to the PRISMA-P Checklist for criteria for each section. <http://www.prisma-statement.org/documents/PRISMA-P-checklist.pdf>

If conducting a **Qualitative Evidence Synthesis** please use the template available here: <https://epoc.cochrane.org/news/qualitative-evidence-synthesis-template>

If conducting a **Quantitative Evidence Synthesis** make sure the items 1 and 6 to 17 of the PRISMA checklist are reported. <http://www.prisma-statement.org/documents/PRISMA-P-checklist.pdf> item 1. An example of a registered protocol in Prospero is available here: https://www.crd.york.ac.uk/PROSPEROFILES/3611_STRATEGY_20130031.pdf For further reading check the "Online optional reading" above as well as PRISMA for systematic review protocols (PROSMA -P) extension and elaboration paper <http://www.prisma-statement.org/documents/PRISMA-P%20EandE%20-%20Shamseer%20BMJ%20Jan%202015.pdf>



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