

Systematic Review & Meta-Analysis Workshop

30th November – 2nd December 2020

Programme

DAY 1

09:00 Welcome and opening

- Introductions
- QUEST Centre

09:15 Lecture *Introduction to systematic reviews*

- What is a systematic review/meta-analysis
- Why perform systematic reviews
- Clinical vs. preclinical systematic reviews
- When to perform a systematic review
- Steps of a systematic review

09:45 Lecture *Starting a systematic review: defining your research question and writing a protocol*

- Defining a research question – PICO (population, intervention, control, outcome)
- Developing and publishing a protocol

10:15 Break

10:30 Lecture *Identifying relevant studies: developing a search strategy*

- Developing a search strategy
- Applying a search strategy

10:30 Computer practical *Developing a search strategy in PubMed*

11:45 Group Discussion

12:00 (approx.) End

DAY 2

09:00 Lecture *Identifying relevant studies: screening for inclusion*

- Defining inclusion and exclusion criteria
- Screening for inclusion

09:30 Computer practical *Screening records for inclusion using SyRF*

10:00 Group Discussion

10:15 Break

10:30 Lecture *Extracting study characteristics and assessing study quality*

- Extracting study characteristics

- Why we assess risk of bias and study quality
- How to assess risk of bias and study quality

11:00 Practical Assessing risk of bias (RoB)

- Assess RoB in 2 papers (focus methods)
- Discussion

12:00 (approx.) End

DAY 3

09:00 Lecture Data extraction/synthesis and meta-analysis

- Which data to extract
- Qualitative vs. quantitative synthesis
- Meta-analysis, basic concepts
 - o Different effect sizes
 - o Pooling, fixed vs. random effects
 - o Heterogeneity

10:00 Computer practical Meta-analysis in RevMan or R

- Meta-analysis using RevMan or R
- Generating forest plots
- Interpreting output

11:00 Break

11:15 Lecture Reporting biases

- Types of reporting biases
- Impact of reporting biases
- How to look for reporting biases

11:30 Computer practical Assessing reporting biases in RevMan or R

- Assessing publication bias using funnel plots
- Trim and fill

12:00 Lecture Reporting a systematic review and meta-analysis

- What to report
- Limitations of systematic reviews
- Automation
- Assessing the quality of a systematic review

12:30 Questions, evaluation and closing

- Resources, how to access tools
- Where to get help

13:00 (approx.) End