Systematic reviews

What is a systematic review?

"A systematic review is a review of a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyze data from the studies that are included in the review” — PRISMA statement

“Systematic reviews should be undertaken by a team. Indeed, Cochrane will not publish a review that is proposed to be undertaken by a single person. Working as a team not only spreads the effort, but ensures that tasks such as the selection of studies for eligibility, data extraction and rating the certainty of the evidence will be performed by at least two people independently, minimizing the likelihood of errors.” — Cochrane Handbook, Part 2, Chapter 1.3

Watch the video: What is a systematic review

Key points from the video:

- Systematic reviews are a type of secondary evidence which summarise research that has already been published.
- Systematic review methodology comprises a series of steps that are comprehensive, transparent and reproducible.
- Before conducting a review, the reviewers need to establish a protocol which clearly outlines:
  - a focused review question
  - the inclusion and exclusion criteria, such as study designs or study type
  - how you are going to search the literature (search strategy)
  - what databases do you wish to search; and
  - how you are going to critically appraise and summarise the included studies.
- If done well, the level of bias in a systematic review is far lower than in any other research design.

Watch the video: Systematic review and evidence-based medicine
Key points from the video:

- Evidence-based medicine is the idea that clinicians practice based on research and data.
- Systematic reviews separate evidence-based information from eminence-based (opinions) information.
- Systematic reviews identify and summarise all research evidence on a particular topic, providing a strong evidence base for clinical decision making.