Rapid Reviews – Topic overview

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What are Rapid Reviews?

• Based on systematic review methodology: research question, systematic searching and literature selection, critical appraisal of included studies, evidence synthesis

⇒ Get reliable answers more quickly
⇒ Some methods are restricted/streamlined

• Variety of aims and methods
⇒ No one-size-fits-all approach
Types of rapid products

- **Evidence inventories**: List available studies, no summary or synthesis
- **Rapid responses**: Knowledge translation → summary of best available evidence (e.g. existing SRs)
- „True“ **Rapid reviews**: Knowledge generation → contains all steps of a SR, including evidence synthesis
- **Use of automatisation** (and/or increase of people) to speed up SR process
Further characteristics of RRs

• **Relationship to end-user:** Often conducted to help a *specific requester* make a *specific decision* → impact on question, timeframe, methods

• **Scope:**
  - End-user involved in topic refinement
  - Often address a very focused question,
  - …. though may also address a broad question where user/funder requires a rapid understanding/overview
Impact on literature search

Common approaches

• Reduced number of databases
• Limits: date, language, study designs, geographical area
• No/limited grey literature search
• No contact with authors/experts for unpublished data
• Update of existing SR
Research

Comparing existing rapid and systematic reviews on the same topic (Reynen 2018)
- 14 of 16 RR conclusions consistent with SRs
- Search methods: Less reported in RRs, more often restricted to English-only, fewer grey literature searches
  ⇒ Limited reporting: Differences in information sources or search strategies?

Using existing systematic reviews to simulate streamlined methods (Nußbaumer-Streit 2018)
- Based on 60 Cochrane Reviews: Search of 2 databases or 1 database + reference list checking is often enough to reliably determine the direction of conclusions
  ⇒ Median hits/database: 1256 → Comparable to RR search strategies?
Recommendations

**WHO: Rapid reviews to strengthen health policy and systems: a practical guide** (Tricco 2017)
- Staged search: first SRs, then additional designs
- At least 2 databases: selection is topic-dependant
- Targeted grey literature search if necessary
- Peer review of search strategy

**Redefining rapid reviews: a flexible framework for restricted systematic reviews** (Plüddemann 2018)
- At least 1 database and 1 other source
- Limitation by date and language (acceptable)
- Use previous SR as starting point (acceptable)
Time Savings?

During search:
- Fewer information sources
- Reducing time-consuming additional searching
- Streamlined communication

During literature selection:
- Smaller search result (focused research question, focused search, few databases)
- Staged approach (SR → other designs)


Thank you!

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Palliative Care Evidence Review Service (PaCERS)

Mala Mann
@SysReviews
The service is funded by Health and Care Research Wales through the Wales Cancer Research Centre to support professionals and other decision-makers working in palliative care.

The service is unique in responding to external clinical/organisational calls for evidence rather than itself defining the review agenda.
Aim

• To deliver high quality evidence that is both timely and user-friendly:
  • Conducting rapid reviews
    – provide timely information for decision making compared with standard systematic reviews
What is a Rapid Review?

PaCERS methodology

Rapid review is defined as a review conducted within 8-10 weeks using modified systematic review methods with a highly refined research question, search carried out within a limited set of databases and other sources and increasing the transparency of the methods used.
Search Methods

• Before undertaking the rapid review, check for existing systematic reviews
• Scope of the literature
• Develop search strategy on Ovid Medline
  – Search for five-ten years
  – Up to 4 databases
  – Supplementary searching dependent of the topic
  – Geographical search filter (Organisation for Economic Cooperation and Development countries)
  – **Exclude** conference abstracts, doctoral dissertations and book chapters)
# Databases and Information Sources

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<th>Supplementary Sources</th>
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<td>Google Scholar - Citation tracking via Google Scholar is carried out depending on the time available.</td>
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<td>Electronic Table of Content of Key Journals Grey Literature - Websites relevant to the topic area</td>
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Limitations with rapid reviews

Rapid reviews may be subject to a greater degree of bias.

To address this:

• Use a well designed process so as not to sacrifice rigour
• Importance of transparency
• Clear documentation/reporting
Palliative Care Evidence Review

The importance of relating clinical practice in the context of patient care, read the literature relevant to clinical practice, and deal with conflicting information.

Rapid Review is defined as a review of evidence gathered in a highly expedited manner, with methods that are not necessarily fully validated.

PacCERS has been developed as a rapid evidence synthesis tool to facilitate clinical decision-making by providing information on the availability and quality of evidence.
Identifying studies for ‘rapid’ products

Claire Stansfield
Evidence for Policy and Practice Information and Co-ordinating (EPPI) Centre

Department of Health and Social Care Reviews Facility in collaboration with CRD (Centre for Reviews and Dissemination), University of York; and PHES (Public Health, Environments and Society), London School of Hygiene and Tropical Medicine.
Initially a rapid response
- Clear communication in team
- Search terms – filters/other reviews
- Searched 3 databases

Moving to full review
- Clarity on scope of research
- Time for developing and testing search terms and sources
- Searched multiple sources
Inclusion criteria
- past 5yrs, systematic reviews

Sources – cross-disciplinary – science and social science (Web of Science (SCI, SSCI, ESCI), Scopus, BIOSIS, Health and health behaviours (Medline, Psycinfo)

Google Scholar, BASE

Forward citation searching of included reviews and PROSPERO

Additional work:
- Primary studies search since most relevant review searches (screened and brief coding by title/abstract only)
Sources:
- websites (5)
- databases (7+)
- handsearch of journals (3)
- reference lists, forward citation searching …

… large team of people (including topic experts)
… 78% citations screened using priority screening
…other stages expedited
Screening prioritisation: Changing the distribution of studies

Traditional screening

Screening process (red = eligible study)

Screening aided by text mining

Stop screening?
Machine classifiers

• Pre-built in EPPI-Reviewer
  – Developed from established datasets
    • RCT model
    • Human studies model
    • Systematic review model
    • Economic evaluation

• Build your own
  – From individual reviews
Custom-build classifiers for update searches

Community Pharmacy map of public health interventions

21,555 citations from update search.
Classifier used for 61% reduction in screening titles and abstracts.
- 8,449 title and abstracts for 62 includes
- 1,788 titles only for 7 includes
- Website searches for 12 includes

Challenges
- Uncertainty – when to stop screening
- Managing the screening process

Less useful if
- Vocabulary changes over time
- Eligibility criteria is expanded

Studies in map N=336

- Original searches (n=225)
- Update: relevance-ranked (n=62)
- Update: title-only citations (n=7)
- Update: website searches (n=12)