11 questions to help you make sense of a trial

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of a randomised controlled trial:

- Are the results of the trial valid?  (Section A)
- What are the results?  (Section B)
- Will the results help locally?  (Section C)

The 11 questions on the following pages are designed to help you think about these issues systematically.

The first three questions are screening questions and can be answered quickly. If the answer to both is “yes”, it is worth proceeding with the remaining questions.

There is some degree of overlap between the questions, you are asked to record a “yes”, “no” or “can’t tell” to most of the questions. A number of prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

There will not be time in the small groups to answer them all in detail!

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(A) Are the results of the review valid?

Screening Questions

1. Did the trial address a clearly focused issue?  □ Yes  □ Can’t tell  □ No

HINT: An issue can be ‘focused’ in terms of
- The population studied
- The intervention given
- The comparator given
- The outcomes considered

2. Was the assignment of patients to treatments randomised?  □ Yes  □ Can’t tell  □ No

HINT: Consider
- How was this carried out?
- Was the allocation sequence concealed from researchers and patients?

3. Were all of the patients who entered the trial properly accounted for at its conclusion?  □ Yes  □ Can’t tell  □ No

HINT: Consider
- Was the trial stopped early?
- Were patients analysed in the groups to which they were randomised?
Is it worth continuing?

Detailed questions

4. Were patients, health workers and study personnel ‘blind’ to treatment?

☐ Yes ☐ Can’t tell ☐ No

HINT: Think about
- Patients?
- Health workers?
- Study personnel?

5. Were the groups similar at the start of the trial?

☐ Yes ☐ Can’t tell ☐ No

HINT: Look at
- Other factors that might affect the outcome such as age, sex, social class
6. Aside from the experimental intervention, were the groups treated equally?  
☐ Yes  ☐ Can’t tell  ☐ No

(B) What are the results?

7. How large was the treatment effect?

HINT: Consider
- What outcomes were measured?
- Is the primary outcome clearly specified?
- What results were found for each outcome?

8. How precise was the estimate of the treatment effect?

HINT: Consider
- What are the confidence limits?
(C) Will the results help locally?

9. Can the results be applied in your context? (or to the local population?)

☐ Yes  ☐ Can’t tell  ☐ No

HINT: Consider whether

- Do you think that the patients covered by the trial are similar enough to the patients to whom you will apply this, if not how to they differ?

10. Were all clinically important outcomes considered?

☐ Yes  ☐ Can’t tell  ☐ No

HINT: Consider

- Is there other information you would like to have seen?
- If not, does this affect the decision?

11. Are the benefits worth the harms and costs?

☐ Yes  ☐ Can’t tell  ☐ No

HINT: Consider

- Even if this is not addressed by the review, what do you think?