LEGEND: Evidence Appraisal of a Single Study
All Domains
Descriptive Study, Epidemiologic Study, Case Series

Reviewer:

Project/Topic of your Clinical Question:

Article Title:

Today's Date:

Final Evidence Level:

Year:

First Author:

Journal:

Do the study aim/purpose/objectives and inclusion/exclusion criteria assist in answering your clinical question?

☐ Yes ☐ No ☐ Unknown

• Study Aim/Purpose/Objectives:
  
  • Inclusion Criteria:
  
  • Exclusion Criteria:

Is a descriptive, epidemiologic, or case series study congruent with the author’s study aim, purpose, or objectives above?

☐ Yes ☐ No ☐ Unknown

When reading the bolded questions, consider the bulleted questions to help answer the main question.

If you are uncertain of your skills in evidence evaluation, please consult a local evidence expert for assistance:

• CCHMC Evidence Experts

Unfamiliar terms can be found in the LEGEND Glossary.

Validity
Are the results of the study valid?

1. Were study methods appropriate for the question?
   
   ☐ Yes ☐ No ☐ Unknown

   • Were the study methods clearly described? (e.g., setting, sample population, instruments, intervention, etc.)

2. Were valid and reliable instruments/methods used to measure the outcomes?
   
   ☐ Yes ☐ No ☐ Unknown

   • Was evidence provided to support the validity and reliability?

3. Were all appropriate variables (e.g., potential confounders, exposures, predictors) clearly described?
   
   ☐ Yes ☐ No ☐ Unknown

4. Were all appropriate outcomes clearly described?
   
   ☐ Yes ☐ No ☐ Unknown

5. Were all participants accounted for at the conclusion of the study?
   
   ☐ Yes ☐ No ☐ Unknown

   • Were withdrawals from the study explained?
   
   • Was the rate of attrition acceptable?

6. Was there freedom from conflict of interest?
   
   ☐ Yes ☐ No ☐ Unknown

   • Sponsors, Funding Agency, Investigators

Comments on Study Validity:

Reliability
Are these valid study results important?

7. Were the statistical analysis methods clearly described and appropriate?
   
   ☐ Yes ☐ No ☐ Unknown

8. Did the study have a sufficiently large sample size?
   
   ☐ Yes ☐ No ☐ Unknown

   • Was there a sufficient response rate?
   
   • Was a power analysis described?
   
   • Did the sample size achieve or exceed that resulting from the power analysis?
   
   • Did each subgroup also have sufficient sample size (e.g., at least 6 to 12 participants)?

9. What were the main results of the study? (e.g., Helpful data: Page #, Table #, Figures, Graphs)
   
   ☐ Yes ☐ No ☐ Unknown

   • What were the measures of statistical uncertainty (e.g., precision)?
   
   (Were the results presented with Confidence Intervals or Standard Deviations?)
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10. Were the results statistically significant? ☐ Yes ☐ No ☐ Unknown

11. Were the results clinically significant? ☐ Yes ☐ No ☐ Unknown

12. Were any adverse events, safety concerns, or risks/benefits appropriately described? ☐ Yes ☐ No ☐ Unknown

Comments on Study Reliability:

Applicability Can I apply these valid, important study results to my patients?

13. Can the results be applied to my population of interest? ☐ Yes ☐ No ☐ Unknown
   - Do the patient outcomes apply to my population or question of interest?
   - Are the likely benefits worth the potential harm and costs?
   - Were the patients in this study similar to my population of interest?

14. Are my patient’s and family’s values and preferences satisfied by the knowledge gained from this study (such as outcomes considered)? ☐ Yes ☐ No ☐ Unknown

13. Would you include this study/article in development of a care recommendation? ☐ Yes ☐ No ☐ Unknown

Comments on Study Applicability:

Additional Comments or Conclusions (“Take-Home Points”)

Quality Level / Evidence Level

Consider each “No” answer and the degree to which this limitation is a threat to the validity of the results, then check the appropriate box to assign the level of quality for this study/article.

Consider an “Unknown” answer to one or more questions as a similar limitation to answering “No,” if the information is not available in the article.

The Evidence Level is:

☐ Good Quality Descriptive/Epidemiologic Study [4a]
☐ Lesser Quality Descriptive/Epidemiologic Study [4b]
☐ Not Valid, Reliable, or Applicable

Table of Evidence Levels

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* RCT = Randomized Controlled Trial; CCT = Controlled Clinical Trial
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Development for this appraisal form is based on:


