

Project/Topic of your Clinical Question: _____
 Reviewer: _____ Today's Date: _____ Final Evidence Level: _____
 Article Title: _____
 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:

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: <http://groups/ce/NewEBC/EBDMHelp.htm>
 Unfamiliar terms can be found in the LEGEND Glossary: <http://groups/ce/NewEBC/EBCFiles/GLOSSARY-EBDM.pdf>

VALIDITY: ARE THE RESULTS OF THE SYSTEMATIC REVIEW / META-ANALYSIS VALID OR CREDIBLE?

1. Did the overview address a focused clinical question? Yes No Unknown
Comments:

2. Was the search for relevant studies detailed and exhaustive? Yes No Unknown
 • Was it *unlikely* that important, relevant studies were missed?
Comments:

3. Were the included studies appraised and assigned a high level of quality? Yes No Unknown
Comments:

4. Were the methods consistent or homogeneous from study to study, such as the bullets below? Yes No Unknown

- Did the overview describe the study populations at a well-defined point in the course of disease?
- Were the participants sufficiently similar (*homogeneous*) with respect to known factors of interest (*e.g., demographic, exposure, risk, treatment, or etiology*)?
- Were similar objective and unbiased outcome criteria used?

Comments:

5. Was there freedom from conflict of interest? Yes No Unknown
 • Sponsor/Funding Agency or Investigators
Comments:

RELIABILITY: ARE THESE VALID STUDY RESULTS IMPORTANT?

6. Were the statistical analysis methods appropriate? Yes No Unknown

- Were the statistical analysis methods clearly described?
- If subgroups were evaluated, was a statistical adjustment made for the differences?

Comments:

7. What are the main results of the study? (e.g., Helpful data: Page #, Table #, Figures, Graphs)

- **For an Etiology Study:** How strong is the association/correlation between exposure and outcome?
- **For a Prevalence or Incidence Study:** What is the rate?
(e.g., number per population [prevalence] or number per population per year or other time period [incidence])
- What were the measures of statistical uncertainty (e.g., precision)?
(Were the results presented with Confidence Intervals or Standard Deviations?)

8. Were the results statistically significant? Yes No Unknown

Comments:

9. Were the results clinically significant? Yes No Unknown

Comments:

APPLICABILITY: CAN I APPLY THESE VALID, IMPORTANT STUDY RESULTS TO TREATING MY PATIENTS?

10. Can the results be applied to my population of interest? Yes No Unknown

- Do the exposures or outcomes apply to my population or question of interest?
- Were the participants or populations in this study similar to my population of interest?

Comments:

11. 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

Comments:

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

Comments:

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 Systematic Review** [1a]
 Lesser Quality Systematic Review [1b]
 Not Valid, Reliable, or Applicable

| Table of Evidence Levels | | | | | | | | | | | | | | | |
|-----------------------------|------------------------------------|------------------|------------------|-------------------------|---------------------------|----------------|-------------------|--|---------------------|---|------------|------------------------------|-------------|--------------------------|--|
| DOMAIN OF CLINICAL QUESTION | TYPE OF STUDY / STUDY DESIGN | | | | | | | | | | | | | | |
| | Systematic Review Meta-Analysis | RCT ⁺ | CCT ⁺ | Cohort – Prospective | Cohort – Retrospective | Case – Control | Cross – Sectional | Descriptive Study Epidemiology Case Series | Mixed Methods Study | Decision Analysis Economic Analysis Computer Simulation | Guidelines | Case Reports N-of-1 Study | Bench Study | Published Expert Opinion | Local Consensus Published Abstracts |
| Etiology / Risk Factors | 1a | 2a | 3a | 3a | 4a | 4a | 4a | 4a | 2/3/4 | 5a | 5a | 5a | 5a | 5a | 5 |
| | 1b | 2b | 3b | 3b | 4b | 4b | 4b | 4b | a/b | 5b | 5b | 5b | 5b | 5b | |
| Incidence | 1a | | | 2a | 3a | | | 4a | | | 5a | 5a | 5a | 5a | 5 |
| | 1b | | | 2b | 3b | | | 4b | | | 5b | 5b | 5b | 5b | |
| Prevalence | 1a | | | | | 3a | 3a | 4a | | | 5a | 5a | 5a | 5a | 5 |
| | 1b | | | | | 3b | 3b | 4b | | | 5b | 5b | 5b | 5b | |

⁺ RCT = Randomized Controlled Trial; CCT = Controlled Clinical Trial

Development for this appraisal form is based on:

1. Guyatt, G.; Rennie, D.; Evidence-Based Medicine Working Group.; and American Medical Association.: Users' guides to the medical literature : a manual for evidence-based clinical practice. *Users' guides to the medical literature : a manual for evidence-based clinical practice*: "JAMA & archives journals." Chicago, IL, 2002
2. Melnyk, B. M. and E. Fineout-Overholt (2005). Evidence-based practice in nursing & healthcare : a guide to best practice. Philadelphia, Lippincott Williams & Wilkins.
3. Phillips, et al: Oxford Centre for Evidence-based Medicine Levels of Evidence, 2001. Last accessed Nov 14, 2007 from <http://www.cebm.net/index.aspx?o=1025>.
4. Fineout-Overholt and Johnston: Teaching EBP: asking searchable, answerable clinical questions. *Worldviews Evid Based Nurs*, 2(3): 157-60, 2005.