Cincinnati Children's

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

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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:

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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)*

   - ***Etiology/Risk Factors:*** How strong is the association/correlation between exposure and outcome?

   - ***Prevalence/Incidence:*** 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 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	Expert Opinion Case Reports Guidelines
Etiology / Risk Factors	1a 1b	2a 2b	3a 3b	3a 3b	4a 4b	4a 4b	4a 4b	4a 4b	5a 5b
Incidence	1a 1b			2a 2b	3a 3b			4a 4b	5a 5b
Prevalence	1a 1b					2a 2b	3a 3b	4a 4b	5a 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.