

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:

Is a cohort study congruent with the author's study aim/purpose/objectives above? Yes No Unknown
Comments:

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 COHORT STUDY VALID OR CREDIBLE?

1. **Were data collected prospectively?** Yes No Unknown
Comments:

2. **Was the study sample representative of patients with the disease in question?** Yes No Unknown
Comments:

3. **Were all participants at the same well-defined point in the course of the disease?** Yes No Unknown
Comments:

4. **At the start of the study, were the participants similar with respect to known prognostic factors (e.g., demographic and clinical variables)?** Yes No Unknown
• Were the patients sufficiently homogeneous with respect to prognostic risk?
Comments:

5. **Were all potentially important prognostic factors assessed?** Yes No Unknown
Comments:

6. Were the outcomes quantifiable and precisely measurable? Yes No Unknown
- Were instruments used to measure the outcomes valid and reliable?
 - Was the assessment of the outcome made independent of knowledge of prognostic factors?
- Comments:
7. Were participants followed long enough for outcomes to occur? Yes No Unknown
- Was the follow-up process clearly described?
 - Was the follow-up process complete?
- Comments:
8. 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?
- Comments:
9. Was there freedom from conflict of interest? Yes No Unknown
- Sponsor/Funding Agency or Investigators
- Comments:

RELIABILITY: ARE THESE VALID STUDY RESULTS IMPORTANT?

10. Did the study have a sufficiently large sample size? Yes No Unknown
- 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*)?
- Comments:
11. Were the statistical analysis methods appropriate? Yes No Unknown
- Were the statistical analysis methods clearly described?
 - If subgroups in the sample had different prognostic factors (*e.g., demographics, disease specifics, comorbidity*), was an adjustment made for the differences between groups?
 - Was an adjustment made for changes that occur as the patient ages, if any?
- Comments:

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

- How likely are the outcomes over time?
 - Absolute results (e.g., 5 year survival rate) or Relative results (e.g., risk from prognostic factor) or Survival Curves (e.g., cumulative events)
- What were the measures of statistical uncertainty (e.g., precision)?
(Were the results presented with Confidence Intervals or Standard Deviations?)

13. Were the results statistically significant? Yes No Unknown

Comments:

14. Were the results clinically significant? Yes No Unknown

- If potential confounders were identified, were they discussed in relationship to the results?

Comments:

APPLICABILITY: CAN I APPLY THESE VALID, IMPORTANT STUDY RESULTS TO TREATING MY PATIENTS?**15. Can the results be applied to my population of interest?** Yes No Unknown

- Is the setting of the study applicable to my population of interest?
- Do the patient outcomes apply to my population or question of interest?
- Were the patients in this study similar to my population of interest?

Comments:

16. 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:

17. 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 Prospective Cohort Study** (2a)
- Lesser Quality Prospective Cohort Study** (2b)
- Good Quality Retrospective Cohort Study** (3a)
- Lesser Quality Retrospective Cohort Study** (3b)
- Not Valid, Reliable, or Applicable**

TABLE OF EVIDENCE LEVELS							
DOMAIN OF CLINICAL QUESTION	TYPE OF STUDY / STUDY DESIGN						
	Systematic Review Meta-Analysis	Cohort – Prospective	Cohort – Retrospective	Case – Control	Cross – Sectional	Epidemiology Descriptive Case Series	Expert Opinion Case Reports
Prognosis	1a	2a	3a	4a	4a	4a	5a
	1b	2b	3b	4b	4b	4b	5b

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.