### Project/Topic of your Clinical Question:

### Reviewer: ___________________________  Today’s Date: ___________________________  Final Evidence Level: ____________

### Article Title: ___________________________  Year: ___________________________  First Author: ___________________________  Journal: ___________________________

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

- **Study Aim/Purpose/Objectives:**
  - Yes
  - No
  - Unknown

- **Inclusion Criteria:**
  - Yes
  - No
  - Unknown

- **Exclusion Criteria:**
  - Yes
  - No
  - Unknown

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

- **Comments:**
  - Yes
  - No
  - Unknown

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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](http://groups/ce/NewEBC/EBDMHelp.htm)

- **Unfamiliar terms can be found in the LEGEND Glossary:** [http://groups/ce/NewEBC/EBCFiles/GLOSSARY-EBDM.pdf](http://groups/ce/NewEBC/EBCFiles/GLOSSARY-EBDM.pdf)

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## VALIDITY: ARE THE RESULTS OF THE STUDY VALID OR CREDIBLE?

### 1. Were the study methods appropriate for the question?

- **Comments:**
  - Yes
  - No
  - Unknown

- **Were the study methods clearly described?**
  - (e.g., setting, sample population, instruments, intervention, etc.)
  - Yes
  - No
  - Unknown

- **Comments:**

### 2. Were valid and reliable instruments/methods used to measure the outcomes?

- **Was evidence provided to support the validity and reliability?**
  - Yes
  - No
  - Unknown

- **Comments:**

### 3. Were all appropriate variables (e.g., potential confounders, exposures, predictors) clearly described?

- **Comments:**
  - Yes
  - No
  - Unknown

### 4. Were all appropriate outcomes clearly described?

- **Comments:**
  - Yes
  - No
  - Unknown
5. Were all participants accounted for at the conclusion of the study?
   - Were withdrawals from the study explained? [Yes] [No] [Unknown]
   - Was the rate of attrition acceptable?
   Comments:

6. Was there freedom from conflict of interest?
   - Sponsor/Funding Agency or Investigators [Yes] [No] [Unknown]
   Comments:

**RELIABILITY: ARE THESE VALID STUDY RESULTS IMPORTANT?**

7. Were the statistical analysis methods clearly described and appropriate? [Yes] [No] [Unknown]
   Comments:

8. Did the study have a sufficiently large sample size?
   - Was there a sufficient response rate? [Yes] [No] [Unknown]
   - Was a power analysis described? [Yes] [No] [Unknown]
   - Did the sample size achieve or exceed that resulting from the power analysis? [Yes] [No] [Unknown]
   - Did each subgroup also have sufficient sample size (e.g., at least 6 to 12 participants)? [Yes] [No] [Unknown]
   Comments:

9. What are the main results of the study?
   - What were the measures of statistical uncertainty (e.g., precision)?
     (Were the results presented with Confidence Intervals or Standard Deviations?) [Yes] [No] [Unknown]

10. Were the results statistically significant? [Yes] [No] [Unknown]
    Comments:

11. Were the results clinically significant? [Yes] [No] [Unknown]
    Comments:

12. Were any adverse events, safety concerns, or risks/benefits appropriately described? [Yes] [No] [Unknown]
    Comments:
13. Can the results be applied to my population of interest?  
- 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?  
Comments:

14. Are my patient’s and family’s values and preferences satisfied by the knowledge gained from this study (such as outcomes considered)?  
Comments:

15. Would you include this study/article in development of a care recommendation?  
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 Descriptive/Epidemiologic Study [4a]
- [ ] Lesser Quality Descriptive/Epidemiologic Study [4b]
- [ ] Not Valid, Reliable, or Applicable

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

Development for this appraisal form is based on: