Project/Topic of your Clinical Question: 

Reviewer: 

Today’s Date: 

Final Evidence Level: 

Article Title: 

First Author: 

Journal: 

Do the study aim/purpose/objectives and target population assist in answering your clinical question? 

☐ Yes  ☐ No  ☐ Unknown 

- Study Aim/Purpose/Objectives: 

- Target Population: 

Is a decision analysis, economic analysis, or computer simulation 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 DECISION ANALYSIS OR ECONOMIC ANALYSIS VALID OR CREDIBLE? 

1. Was a well-defined question posed? 

☐ Yes  ☐ No  ☐ Unknown 

Note: An ideal, well-defined question includes Population, Interventions/Comparators, and Outcomes. Economic analysis also includes Cost and Perspectives (e.g., societal, healthcare system, payor, consumer). 
Comments: 

2. Were all important, realistic strategies included and clearly specified? 

☐ Yes  ☐ No  ☐ Unknown 

- Was the intervention(s) or strategy(ies) clearly described and appropriate? 
- Were the comparator(s) (e.g., competing alternatives, reference case, standard of care) clearly described and appropriate? 
Comments: 

3. Was there evidence that the intervention/strategy effectiveness had been established? 

☐ Yes  ☐ No  ☐ Unknown 

- What was the evidence level (i.e., quality level) of the evidence? ______ 
Comments:
4. Were all important and relevant outcomes considered (e.g., clinical, quality of life, harm, disability, death, costs, lost time from work)?
   - Was the length of time considered (analysis time horizon) long enough to identify all important and relevant outcomes?
   Comments:
   [□ Yes □ No □ Unknown]

5. Was a model clearly described and appropriate?
   Comments:
   [□ Yes □ No □ Unknown]

6. For an economic analysis, do included costs match stated perspective(s)?
   Comments:
   [□ Yes □ No □ Unknown]

7. Were the outcomes and costs measured using valid and reliable tools?
   Comments:
   [□ Yes □ No □ Unknown]

8. In measuring outcomes and costs, were the measures/utilities used valued and appropriate?
   Note: Measures/Utilities include, but are not limited to, ICER (Incremental Cost-Effectiveness Ratio), QALY (Quality-Adjusted Life Years), or DALY (Daily-Adjusted Life Years).
   - Were the measures/utilities obtained in an explicit and sensible way from credible sources?
   Comments:
   [□ Yes □ No □ Unknown]

9. Was an explicit and sensible process used to identify, select, and combine evidence into probabilities?
   - Was the potential impact of any uncertainty in the evidence determined (e.g., Sensitivity Analysis)?
   Comments:
   [□ Yes □ No □ Unknown]

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

**RELIABILITY: HOW WERE OUTCOMES AND COSTS ASSESSED AND COMPARED?**

11. Does one strategy result in a clinically important gain for patients?
    If No, is the result a toss–up?
    - Were the main assumptions stated and justified?
    Comments:
    [□ Yes □ No □ Unknown]
12. Could uncertainty in the evidence change the result?  
   - Comments:  
   - Yes ☐  No ☐  Unknown ☐

13. For an economic analysis, was a comprehensive economic comparison of all important health care strategies conducted?  
   - Were the main assumptions stated and justified?  
   - Comments:  
   - Yes ☐  No ☐  Unknown ☐

14. What are the main results of the study?  (e.g., Helpful data: Page #, Table #, Figures, Graphs)  
   - Is the model validated by the results?  
     - Yes ☐  No ☐
   - If not, describe how the model was modified, according to the results:  
   - How large was the main effect (e.g., clinical outcomes, process outcomes, magnitude of ratios, total cost, cost-effectiveness ratios)?

15. Was an incremental analysis (i.e., CE Ratios) of the outcomes and costs of alternatives performed (i.e., Sensitivity Analysis)?  
   - Comments:  
   - Yes ☐  No ☐  Unknown ☐

16. Was appropriate allowance made for uncertainties in the analysis?  
   - Comments:  
   - Yes ☐  No ☐  Unknown ☐
   - What were the measures of statistical uncertainty (e.g., precision)?  
     (Were the results presented with Confidence Intervals or Standard Deviations?)

17. Were outcomes and costs adjusted for different times at which they occurred, such as discounting?  
   - Comments:  
   - Yes ☐  No ☐  Unknown ☐

18. Are the estimates of outcomes and costs related to the baseline risk in the treatment population, if relevant?  
   - Comments:  
   - Yes ☐  No ☐  Unknown ☐

19. Were the results statistically significant?  
   - Comments:  
   - Yes ☐  No ☐  Unknown ☐
20. Were the results clinically significant?
   - If potential confounders were identified, were they discussed in relationship to the results?
   Comments:

21. Were the conclusions of the evaluation justified by the evidence presented?
   Comments:

**Applicability: Can I apply these valid, important study results to my population? Is the evaluation usable?**

22. Did the presentation and discussion of the results include all or enough of the issues that are of concern to consumers (e.g., patient, healthcare system, policy maker, payor)?
   Comments:

23. Can the results be applied to my population of interest?
   - Is the intervention feasible in my care setting?
   - Are the likely benefits worth the potential harm and costs?
   Comments:

24. Are my patient’s and family’s values and preferences satisfied by the knowledge gained from this study?
   - Were the patients in this study similar to my population of interest?
   - Do your patient and you have a clear assessment of their values and preferences?
   - Are they met by this analysis?
   Comments:

25. Would you include this study/article in development of a recommendation?
   Comments:

**Additional Comments or Conclusions (“Take-home Points”):**
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 Decision Analysis / Economic Analysis / Computer Simulation [5a]
- [ ] Lesser Quality Decision Analysis / Economic Analysis / Computer Simulation [5b]
- [ ] Not Valid, Reliable, or Applicable

### Table of Evidence Levels

<table>
<thead>
<tr>
<th>Domain of Clinical Question</th>
<th>Systematic Review / Meta-Analysis</th>
<th>RCT</th>
<th>CCT</th>
<th>Qualitative Study</th>
<th>Cohort – Prospective</th>
<th>Cohort – Retrospective</th>
<th>Case – Control</th>
<th>Longitudinal (Before/After, Time Series)</th>
<th>Descriptive Study</th>
<th>Epidemiology</th>
<th>Case Series</th>
<th>Quality Improvement</th>
<th>Decision Analysis</th>
<th>Economic Analysis</th>
<th>Computer Simulation</th>
<th>Guidelines</th>
<th>Case Reports N-of-1 Study</th>
<th>Bench Study</th>
<th>Published Expert Opinion</th>
<th>Published Abstracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Domains</td>
<td>1a</td>
<td>4a</td>
<td>2/3</td>
<td>4b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Development for this appraisal form is based on: