

Rapid Critical Appraisal Questions for Cohort Studies

VALIDITY

1. Are the results of the study valid?

a. Was there a representative and well defined sample of patients at a similar point in the course of the disease?	Yes	No	Unknown
b. Was follow up sufficiently long and complete?	Yes	No	Unknown
c. Were objective and unbiased outcome criteria used?	Yes	No	Unknown
d. Did the analysis adjust for important prognostic risk factors and confounding variables?	Yes	No	Unknown
Comments			

RELIABILITY

2. What are the results?

a. What is the magnitude of the relationship between predictors (i.e., prognostic indicators) and targeted outcome?

b. How likely is the outcome event(s) in a specified period of time?

c. How precise are the study estimates?

APPLICABILITY

3. Will the results help me in caring for my patients?

a. Were the study patients similar to my own?	Yes	No	Unknown
b. Will the results lead directly to selecting or avoiding therapy?	Yes	No	Unknown
c. Are the results useful for reassuring or counseling patients?	Yes	No	Unknown
Comments			

Would you use the study results in your practice to make a difference in patient outcomes?

- If yes, how?
- If yes, why?
- If no, why not?

Additional Comments/Reflections:

Recommendation for article use within a body of evidence:

Rapid Critical Appraisal Questions for Cross-sectional Studies

<i>Are the results valid</i>		Yes	No	UK
1	Were the aims/objectives of the study clear?			
2	Was the study design appropriate for the stated aim(s)?			
3	Was the sample size justified?			
4	Was the target/reference population clearly defined? (Is it clear who the research was about?)			
5	Was the sample frame taken from an appropriate population base so that it closely represented the target/reference population under investigation?			
6	Was the selection process likely to select subjects/participants that were representative of the target/reference population under investigation?			
7	Were measures undertaken to address and categorize non-responders?			

8	Were the risk factor and outcome variables measured appropriate to the aims of the study?			
9	Were the risk factor and outcome variables measured correctly using instruments/measurements that had been trialled, piloted or published previously?			
10	Is it clear what was used to determined statistical significance and/or precision estimates? (eg, p values, CIs)			
11	Were the methods (including statistical methods) sufficiently described to enable them to be repeated?			
Are the results reliable?				
12	Were the basic data adequately described?			
13	Does the response rate raise concerns about non-response bias?			
14	If appropriate, was information about non-responders described?			
15	Were the results internally consistent?			

16	Were the results for the analyses described in the methods, presented?			
Are the results without bias and applicable?				
17	Were the authors' discussions and conclusions justified by the results?			
18	Were the limitations of the study discussed?			
19	Were there any funding sources or conflicts of interest that may affect the authors' interpretation of the results?			
20	Was ethical approval or consent of participants attained?			

Rapid Critical Appraisal Questions for Descriptive Studies

VALIDITY

Are the results of the study valid?

<ul style="list-style-type: none"> Were study/survey methods appropriate for the question? A study that analyzes the trends and factors associated with ventilator-associated pneumonia (VAP) from 2009 to 2017 using a national database. 	Yes	No	Unknown
<ul style="list-style-type: none"> Was sampling methods appropriate for the research question? 	Yes	No	Unknown
<ul style="list-style-type: none"> Were sample size implications on study results discussed? 	Yes	No	Unknown
<ul style="list-style-type: none"> Were variables studied appropriate for the question? <ul style="list-style-type: none"> Dependent variables are: Independent (outcome) variables are: 	Yes	No	Unknown
<ul style="list-style-type: none"> Were outcomes appropriate for the question? 	Yes	No	Unknown
<ul style="list-style-type: none"> Were valid and reliable instruments used to measure outcomes? 	Yes	No	Unknown
<ul style="list-style-type: none"> Were the chosen measures appropriate for study outcomes? 	Yes	No	Unknown
<ul style="list-style-type: none"> Were outcomes clearly described? 	Yes	No	Unknown
<ul style="list-style-type: none"> Did investigators and/or funding agencies declare freedom from conflict of interest? 	Yes	No	Unknown

RELIABILITY

2. What are the results?

- What were the main results of the study?
 - Was there statistical significance? Explain.
 - Was there clinical significance? Explain.
- Were safety concerns, including adverse events and risk/benefit described? Yes No Unknown

APPLICABILITY

3. Will the results help me in caring for my patients?

<ul style="list-style-type: none"> Are the results applicable to my patient population? 	Yes	No	Unknown
<ul style="list-style-type: none"> Will my patients' and families' values and beliefs be supported by the knowledge gained from the study? 	Yes	No	Unknown

Would you use the study results in your practice to make a difference in patient outcomes?

- If yes, how?
- If yes, why?
- If no, why not?

Additional Comments/Reflections:

Recommendation for article use within a body of evidence:

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Rapid Critical Appraisal Questions for Case Studies

VALIDITY

1. Are the results of the study valid?			
• Is the study question/issue clearly articulated?	Yes	No	Unknown
• Is the researcher's perspective clearly described and taken into account?	Yes	No	Unknown
• Are the methods for collecting data clearly described?	Yes	No	Unknown
• Are the methods for analyzing the data likely to be valid and reliable?	Yes	No	Unknown
• Are quality control measures used?	Yes	No	Unknown
Comments			

RELIABILITY

2. What are the results?			
• Are the results credible, and if so, are they relevant for practice?	Yes	No	Unknown
Comments			

APPLICABILITY

3. Will the results help me in caring for my patients?			
• Are the conclusions drawn justified by the results?	Yes	No	Unknown
• Are the findings of the study transferable to other settings?	Yes	No	Unknown
Comments			

Would you use the study results in your practice to make a difference in patient outcomes?

- If yes, how?
- If yes, why?
- If no, why not?

Additional Comments/Reflections:

Recommendation for article use within a body of evidence:

Rapid Critical Appraisal Questions for Evidence-based Guidelines

CREDIBILITY

1) Who were the guideline developers?	<hr/>		
2) Were the developers representative of key stakeholders in this specialty (interdisciplinary)?	Yes	No	Unknown
3) Who funded the guideline development?	<hr/>		
4) Were any of the guidelines developers funded researchers of the reviewed studies:	Yes	No	Unknown
5) Did the team have a valid development strategy?	Yes	No	Unknown
6) Was an explicit (how decisions were made), sensible and impartial process used to identify, select, and combine evidence?	Yes	No	Unknown
7) Did its developers carry out a comprehensive, reproducible literature review within the past 12 months of its publication/revision?	Yes	No	Unknown
8) Were all important options and outcomes considered?	Yes	No	Unknown
9) Is each recommendation in the guideline tagged by the level/strength of evidence upon which it is based and linked with the scientific evidence?	Yes	No	Unknown
10) Do the guidelines make explicit recommendations (reflecting value judgments about outcomes)	Yes	No	Unknown
11) Has the guideline been subjected to peer review and testing?	Yes	No	Unknown

APPLICABILITY/GENERALIZABILITY

12) Is the intent of use provided (e.g. national, regional, local)?	Yes	No	Unknown
13) Are the recommendations clinically relevant?	Yes	No	Unknown
14) Will the recommendations help me in caring for my patients?	Yes	No	Unknown
15) Are the recommendations practical/feasible (e. g. resources - people and equipment- available)?	Yes	No	Unknown
16) Are the recommendations a major variation from current practice?	Yes	No	Unknown
17) Can the outcomes be measured through standard care?	Yes	No	Unknown

Rapid Critical Appraisal Questions for EBP Implementation or Quality Improvement Projects

Indicate the extent to which the item is met in the published report of the EBP or QI project.

Validity of Evidence Synthesis (i.e. good methodology)	1- No	2-A Little	3- Somewhat	4-Quite a Bit	5-Very much
1. The title of the publication identifies the report/project as an evidence-based practice implementation or quality improvement project.					
2. The project report provides a structured summary that includes, as applicable: data to establish the existent and background of the clinical issue, inclusion and exclusion criteria and source(s) of evidence, evidence synthesis, objective(s) and setting of the EBP or QI project, project limitations, results/outcomes, recommendation and implications for policy.					
3. Report includes existing internal evidence to adequately describe the clinical issue					
4. Provides an explicit statement of the question being addressed with reference to participants or population/intervention/comparison/outcome (PICO).					
5. Explicitly describes the search method (i.e., was it systematic), inclusion and exclusion criteria and rationale for search strategy limits.					
6. Describes multiple information sources (e.g., databases, contact with study authors to identify additional studies, or any other additional search strategies) included in the search strategy, and date.					
7. States the process for title, abstract and article screening for selecting studies.					
8. Describes the method of data extraction (e.g., independently or process for validating data from multiple reviewers).					
9. Includes conceptual and operational definitions for all variables for which data were abstracted (e.g., define blood pressure as systolic blood pressure, diastolic blood pressure, ambulatory blood pressure, automatic cuff blood pressure or arterial blood pressure).					
10. Describes methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level).					
11. States the principal summary measures (e.g., risk ratio, difference in means).					
12. Describes the method of combining results of studies including quality, quantity and consistency of evidence.					
13. Specifies assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).					
14. Describes appraisal procedure and conflict resolution.					
15. Provides number of studies screened, assessed for eligibility, and included in the review, with reasons for exclusion at each stage, ideally with a flow diagram.					

Validity of Evidence Synthesis (i.e. good methodology)	1- No	2-A Little	3- Somewhat	4-Quite a Bit	5-Very much
16. For each study, presents characteristics for which data were extracted (e.g., study size, design, method, follow-up period) and provides citations.					
17. Present data on risk of bias of each study and, if available, any outcome-level assessment.					
18. For all outcomes considered (benefit or harms), include a table with summary data for each intervention group, effect estimates and confidence intervals, ideally with a forest plot.					
19. Summarizes the main findings including the strength of evidence for each main outcome; considering their relevance to key groups (i.e., health care providers, users, and policy makers).					
20. Discusses limitations at study and outcome level (e.g., risk of bias), and at review level (e.g., incomplete retrieval of identified research, reporting bias).					
21. Provides a general interpretation of the results in the context of other evidence, and implications for further research, practice or policy changes.					
Validity of Implementation (i.e., well-done project)					
1. Purpose of project flows from evidence synthesis					
2. Stakeholders (active & passive) are identified and communication with them is described					
3. Implementation protocol is congruent with evidence synthesis (fidelity of the intervention)					
4. Implementation protocol is sufficiently detailed to provide for replication among project participants					
5. Education of project participants and other stakeholders is clearly described					
6. Outcomes are measured with measures supported in the evidence synthesis					
Reliability of Implementation Project (i.e., I can learn from or implement project results)					
1. Data are collected with sufficient rigor to be reliable for like groups to those participants of the project					
2. Results are evidence implementation are clinically meaningful (statistics are interpreted as such)					
Application of Implementation (i.e., this project is useful for my patients)					
1. How feasible is the project protocol?					
2. Have the project managers considered/included all outcomes that are important to my work?					
3. Is implementing the project safe (i.e., low risk of harm)?					
Summary Score					

Recommendations with consideration of this type of level IV intervention evidence:

- 32-64: consider evidence with extreme caution
- 65 - 128: consider evidence with caution
- 128 - 160: consider evidence with confidence

Rapid Critical Appraisal of Literature Review (Level VII)

VALIDITY

1. Are the results of the review valid?

- | | | | |
|---|-----|----|---------|
| A. Are the designs of the articles in the review identified? | Yes | No | Unknown |
| B. Does the review include a detailed description of the search strategy to find all relevant studies and was it systematic? | Yes | No | Unknown |
| C. Does the reviewers use standard criteria to describe the validity of the individual studies (e.g., criteria about methodological quality)? | Yes | No | Unknown |
| D. Were the results consistent across studies? | Yes | No | Unknown |

RELIABILITY

2. What were the results?

- | | | | |
|--|-------|----|---------|
| A. Were the results described across the studies or were the findings described study by study hint: were there synthesis tables)? | Yes | No | Unknown |
| B. What are sources of bias within the report that make the literature review unreliable (see validity questions above)? | _____ | | |
| C. Does the bias within the literature review methodology make the results as described unusable? (if so, stop here). | Yes | No | Unknown |

APPLICABILITY

3. Will the results assist me in caring for my patients?

- | | | | |
|--|-------|----|---------|
| A. Are my patients similar to the ones included in the review? | Yes | No | Unknown |
| B. Is it feasible to implement the findings in my practice setting? | Yes | No | Unknown |
| C. Were all clinically important outcomes considered, including risks and benefits of the treatment? | Yes | No | Unknown |
| D. What is my clinical assessment of the patient and are there any contraindications or circumstances that would inhibit me from implementing the treatment? | Yes | No | Unknown |
| E. What are my patient's and his or her family's preferences and values about the treatment that is under consideration? | _____ | | |

Would you use the study results in your practice to make a difference in patient outcomes?

- If yes, how?
- If yes, why?
- If no, why not?

Additional Comments/Reflections:

Recommendation for article use within a body of evidence:

Rapid Critical Appraisal Questions for Quasi-Experimental Studies

Explain your answers and recommendation for use of this study in the body of evidence to answer your PICOT question.

VALIDITY

1. Are the results of the study valid?	Yes	No	Unknown	Rationale/Comment
• Study participants in intervention and comparison groups are similar	1	2	3	
• The intervention is clearly identified.	1	2	3	
• There a control group.	1	2	3	
• Participants in the comparison group(s) received a reasonable treatment/care to the exposure or intervention of interest given to the intervention group.	1	2	3	
• Follow-up between groups is adequately described and analysed	1	2	3	
• Appropriate statistical analysis were used for the data gathered	1	2	3	
• Measurement of the outcome was obtained pre and post the intervention.	1	2	3	
• The outcomes are the same across all groups were measured with the same instrument	1	2	3	
• Outcomes were measured with valid and reliable instruments	1	2	3	

RELIABILITY

2. What are the results?

- What were the magnitude of the results?
- What was the precision of the results?

APPLICABILITY

3. Will the results help me in caring for my patients?

- Were the study patients similar to my own?
- Will the results lead directly to selecting or avoiding therapy?
- Are the results useful for reassuring or counseling patients?

1	2	3	
1	2	3	
1	2	3	

Would you use the study results in your practice to make a difference in patient outcomes?

- If yes, how?
- If yes, why?
- If no, why not?

Additional Comments/Reflections:

Recommendation for article use within a body of evidence

Rapid Critical Appraisal Questions for Randomized Clinical Trials (RCT)

VALIDITY

1. Are the results of the study valid?			
a. Were the participants randomly assigned to the experimental and control groups?	Yes	No	Unknown
b. Was random assignment concealed from the individuals who were first enrolling participants into the study?	Yes	No	Unknown
c. Were the participants and providers blind to the study group?	Yes	No	Unknown
d. Were reasons given to explain why participants did not complete the study?	Yes	No	Unknown
e. Were the follow-up assessments conducted long enough to fully study the effects of the intervention?	Yes	No	Unknown
f. Were the participants analyzed in the group to which they were randomly assigned?	Yes	No	Unknown
g. Was the control group appropriate?	Yes	No	Unknown
h. Were the instruments used to measure the outcomes valid and reliable?	Yes	No	Unknown
i. Were the participants in each of the groups similar on demographic and baseline clinical variables?	Yes	No	Unknown

RELIABILITY

2. What are the results?	
a. How large is the intervention or treatment effect (NNT, NNH, effect size)?	_____
b. How precise is the intervention or treatment (CI)?	_____

APPLICABILITY

3. Will the results help me in caring for my patients?			
a. Were all clinically important outcomes measured?	Yes	No	Unknown
b. What are the risks and benefits of the treatment?	_____		
c. Is the treatment feasible in my clinical setting?	Yes	No	Unknown
d. What are my patient's/family's values and expectations for the outcome that is trying to be prevented and the treatment itself?	_____		

Would you use the study results in your practice to make a difference in patient outcomes?

- If yes, how?
- If yes, why?
- If no, why not?

Additional Comments/Reflections:

Recommendation for article use within a body of evidence:

Rapid Critical Appraisal Questions for Systematic Reviews & Meta-analyses of Clinical Interventions Question

VALIDITY

1. Are the results of the review valid?			
a. Are the studies contained in the review randomized controlled trials?	Yes	No	Unknown
b. If not, were all relevant studies included in the review?	Yes	No	Unknown
c. Does the review include a detailed description of the search strategy to find all relevant studies?	Yes	No	Unknown
d. Does the review describe how validity of the individual studies was assessed (e.g., methodological quality, including the use of random assignment to study groups and complete follow-up of the participants)?	Yes	No	Unknown
e. Were the results consistent across studies?	Yes	No	Unknown
f. Were individual patient data or aggregate data used in the analysis?	Individual	Aggregate	
g. Does the review include a description of how studies were compared using statistical analysis?	Yes	No	Unknown

RELIABILITY

2. What were the results?		
a. How large is the intervention or treatment effect (OR, RR, effect size)?		
b. How precise is the intervention or treatment (CI)?		

APPLICABILITY

3. Will the results assist me in caring for my patients?			
a. Are my patients similar to the ones included in the review?	Yes	No	Unknown
b. Is it feasible to implement the findings in my practice setting?	Yes	No	Unknown
a. Do the pooled or combined results of the studies support the hospital's values and goals of service delivery ? (i.e., is it feasible to implement the findings in my practice setting?)	Yes	No	Unknown
c. Were all clinically important outcomes considered, including risks and benefits of the treatment?	Yes	No	Unknown
d. What is my clinical assessment of the patient and are there any contraindications or circumstances that would inhibit me from implementing the treatment?	Yes	No	Unknown
e. What are my patient's and his or her family's preferences and values about the treatment that is under consideration?	Yes	No	Unknown

Would you use the study results in your practice to make a difference in patient outcomes?

- If yes, how?
- If yes, why?
- If no, why not?

Additional Comments/Reflections:

Recommendation for article use within a body of evidence:

Rapid Critical Appraisal Questions for Qualitative Evidence

VALIDITY

1. Are the results of the study valid (i.e., trustworthy and credible)?			
a. How were study participants chosen?			
b. How were accuracy and completeness of data assured?			
c. How plausible/believable are the results?			
i. Are implications of the research stated?	Yes	No	Unknown
1. May new insights increase sensitivity to others' needs?	Yes	No	Unknown
2. May understandings enhance situational competence?	Yes	No	Unknown
d. What is the effect on the reader?			
1. Are results plausible and believable?	Yes	No	Unknown
2. Is the reader imaginatively drawn into the experience?	Yes	No	Unknown

RELIABILITY

2. What were the results?			
a. Does the research approach fit the purpose of the study?	Yes	No	Unknown
i. How does the researcher identify the study approach?	Yes	No	Unknown
1. Are language and concepts consistent with the approach?	Yes	No	Unknown
2. Are data collection and analysis techniques appropriate?	Yes	No	Unknown
ii. Is the significance/importance of the study explicit?	Yes	No	Unknown
1. Does review of the literature support a need for the study?	Yes	No	Unknown
2. What is the study's potential contribution?			
iii. Is the sampling strategy clear and guided by study needs?	Yes	No	Unknown
1. Does the researcher control selection of the sample?	Yes	No	Unknown
2. Do sample composition and size reflect study needs?	Yes	No	Unknown
b. Is the phenomenon (human experience) clearly identified?			
i. Are data collection procedures clear?	Yes	No	Unknown
1. Are sources and means of verifying data explicit?	Yes	No	Unknown
2. Are researcher roles and activities explained?	Yes	No	Unknown
ii. Are data analysis procedures described?	Yes	No	Unknown
1. Does analysis guide direction of sampling and when it ends?	Yes	No	Unknown
2. Are data management processes described?	Yes	No	Unknown
c. What are the reported results (description or interpretation)?			
i. How are specific findings presented?			
1. Is presentation logical, consistent, and easy to follow?	Yes	No	Unknown
2. Do quotes fit the findings they are intended to illustrate?	Yes	No	Unknown
ii. How are overall results presented?			
1. Are meanings derived from data described in context?	Yes	No	Unknown
2. Does the writing effectively promote understanding?	Yes	No	Unknown

APPLICABILITY

3. Will the results help me in caring for my patients?			
a. Are the results relevant to persons in similar situations?	Yes	No	Unknown
b. Are the results relevant to patient values and/or circumstances?	Yes	No	Unknown
c. How may the results be applied in clinical practice?			

Would you use the study results in your practice to make a difference in patient outcomes?

- If yes, how?
- If yes, why?
- If no, why not?

Additional Comments/Reflections:

Recommendation for article use within a body of evidence