



Critical Appraisal Worksheets

壹..Primary Studies

CRITICAL REVIEW FORM FOR THERAPY

I. Are the Results Valid?

1. Was the assignment of patients to treatments randomized?
2. Were all patients who entered the trial properly accounted for and attributed at its conclusion?
 - a. Was follow-up complete?
 - b. Were patients analyzed in the groups to which they were randomized?
3. Were patients, clinicians, and study personnel "blind" to treatment?
4. Were the groups similar at the start of the trial?
5. Aside from the experimental intervention, were the groups treated equally?

II. What Are the Results?

1. How large was the treatment effect?
2. How precise is the estimate of the treatment effect?

III. Will the Results Help Me in My Patient Care?

1. Can the results be applied to my patients?
2. Were all clinically important outcomes considered?
3. Are the benefits worth the harms and costs?

References: JAMA 1993; 270: 2598-2601, JAMA 1994; 271: 59-63

CRITICAL REVIEW FORM FOR A DIAGNOSTIC TEST

I. Are the Results Valid?

1. Was there an independent, blind comparison with a reference standard?
2. Did the patient sample include an appropriate spectrum of patients to whom the test will be applied?
3. Did the results of the test being evaluated influence the decision to perform the reference standard?
4. Were the test methods described clearly enough to permit replication?

II. What Are the Results?

1. What are the likelihood ratios for the test results?

III. Will the Results Help Me In My Patient Care?

1. Will the test be reproducible and well interpreted in my practice setting?
2. Are the results applicable to my patients?
3. Will the results change my management?
4. Will my patients be better off because of the test?

References: JAMA 1994; 271: 389-391, JAMA 1994; 271: 703-707

CRITICAL REVIEW FORM FOR HARM

I. Are the Results Valid?

1. Except for the exposure under study, were the compared groups similar to each other?
2. Were the outcomes and exposures measured in the same ways in both groups?
3. Was the follow-up of patients sufficiently long and complete?
4. Is the temporal relationship correct?
5. Is there a dose-response gradient?

II. What Are the Results?

1. How strong is the association between exposure and outcome?
2. How precise is the estimate of risk?

III. Will the Results Help Me In My Patient Care?

1. Are the results applicable to my patients?
2. What is the magnitude of the risk?
3. Should I attempt to stop the exposure?

Reference: JAMA 1994; 271: 1616-1619

CRITICAL REVIEW FORM FOR PROGNOSIS

I. Are the Results Valid?

1. Was there a defined representative sample of patients assembled at a similar point in the course of the disease?
2. Was follow-up sufficiently long and complete?
3. Were objective and unbiased outcome criteria used?
4. Was there adjustments for important prognostic factors?

II. What Are the Results?

1. How likely are the outcomes over time?
2. How precise are the estimates of prognosis?

III. Will the Results Help Me In My Patient Care?

1. Were the study patients similar to my own?
2. Will the results lead directly to selecting or avoiding therapy?
3. Are the results useful for counseling patients?

Reference: JAMA 1994; 272: 234-237

CRITICAL REVIEW FORM ON APPLICABILITY

I. BIOLOGIC:

1. Are there pathophysiologic differences in the illness under study that may lead to a diminished treatment response?
2. Are there patient differences that may diminish the treatment response?

II. SOCIAL AND ECONOMIC:

1. Are there important differences in patient compliance that may diminish the treatment response?
2. Are there important differences in provider compliance that may diminish the treatment response?

III. EPIDEMIOLOGIC:

1. Do my patients have comorbid conditions that significantly alter the potential benefits and risks of treatment?
2. Are there important differences in untreated patients at risk of adverse outcomes that might alter the efficiency of treatment?

References: JAMA 1994; 271: 389-391, JAMA 1994; 271: 703-707

貳..Integrative Studies

CRITICAL REVIEW FORM FOR SYSTEMATIC REVIEW

I. Are the Results Valid?

1. Did this review address a focused clinical question?
2. Were the criteria for article inclusion appropriate?
3. Is it unlikely that relevant studies were missed?
4. Was the validity of the included studies appraised?
5. Was the assessments of studies reproducible?
6. Were the results similar from study to study?

II. What Are the Results?

1. What are the overall results of the review?
2. How precise are the results?

III. Will the Results Help Me In My Patient Care?

1. Can the results be applied to my patients?
2. Were all clinically important outcomes considered?
3. Are the benefits worth the harms and costs?

References: JAMA 1994; 272: 1367-1371

CRITICAL REVIEW FORM FOR A PRACTICE GUIDELINE

I. Are the Results Valid?

1. Were all important options and outcomes clearly specified?
2. Was an explicit and sensible process used to identify, select, and combine the evidence?
3. Was an explicit and sensible process used to consider the relative value to different outcomes?
4. Is the guideline likely to account for important recent developments?
5. Has the guidelines been subject to peer review and testing?

II. What are the recommendations?

1. Are clear, practical, and important recommendations made?
2. How strong are the recommendations?
3. Could the uncertainty in the evidence or values change the guideline is recommendations?

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

1. Is the objective of the guideline consistent with mine?
2. Are the recommendations applicable to my patients?

References: JAMA 1995; 274: 570-574, JAMA 1995; 274: 1630-1632

CRITICAL REVIEW FOR UTILIZATION REVIEW

I. Are the Criteria Valid?

1. Was an explicit and sensible process used to identify, select, and combine evidence for the criteria?
2. What is the quality of the evidence used in framing the criteria?
3. If necessary, was an explicit, systematic, and reliable process used to tap expert opinion?
4. Was an explicit and sensible process used to consider the relative values of different outcomes?
5. If the quality of the evidence used in originally framing the criteria was weak, have the criteria themselves been correlated with patient outcomes?

II. Were the Criteria Applied Appropriately?

1. Was the process of applying the criteria reliable, unbiased, and likely to yield robust conclusions?
2. What is the impact of uncertainty associated with evidence and values on the criteria-based ratings of process of care?

III. Can You Use the Criteria in Your Practice Setting?

1. Are the criteria relevant to your practice setting?
2. Have the criteria been field-tested for feasibility of use in diverse settings, including your own?

References: JAMA 1996; 275: 1435-1439

CRITICAL REVIEW FOR HEALTH SERVICES RESEARCH

I. Three Initial Questions

1. Were the outcome measures accurate and comprehensive?
2. Were there clearly identified, sensible comparison groups?
3. How well did the compared groups match up on important factors that can affect the outcomes of a health service:
4. Who provided the service?
5. What service was provided?
6. When was the service provided?
7. Where was the service provided?
8. How was the service provided?

II. Further Questions

1. Were all important prognostic factors measure?
2. Were measures of patients;|| prognostic factors reproducible and accurate?
3. Were patients similar with respect to these factors?
4. How much difference in outcome(s) remains after adjustment for the prognostic factors?

References: JAMA 1996; 275: 554-558

CRITICAL REVIEW FORM FOR DECISION ANALYSIS

I. Are the Results Valid?

1. Were all important strategies and outcomes included?
2. Was an explicit and sensible process used to assemble the evidence into probabilities?
3. Were the utilities obtained in an explicit and sensible way from credible sources?
4. Was the impact of uncertainty in evidence explored?

II. What Are the Results?

1. Does one strategy yield a clinically important gain for patients? If not, is the result a "toss-up"?
2. How strong is the evidence used in the analysis?
3. Could uncertainty in the evidence change the results?

III. Will the Results Help Me In My Patient Care?

1. Do the probabilities fit my patients;|clinical features?
2. Do the utilities reflect my patients;| values?

References: JAMA 1995; 273: 1292-1295,
JAMA 1995; 273: 1610-1613

CRITICAL REVIEW FOR ECONOMIC ANALYSIS

I. Are the Results Valid?

1. Did the analysis provide a full economic comparison of healthcare strategies?
2. Were the costs and outcomes properly measured and valued?
3. Was appropriate allowance made for uncertainties in the analysis?
4. Are estimates of costs and outcomes related to the baseline risk in the treatment population?

II. What Were the Results?

1. What were the incremental costs and outcomes of each strategy?
2. Do incremental costs and outcomes differ between subgroups?
3. How much does allowance for uncertainty change the results?

III. Will the Results Help Me In My Patient Care?

1. Are treatment benefits worth the harms and costs?
2. Could my patients expect similar health outcomes?
3. Could I expect similar costs?

References: JAMA 1997; 277: 1552-1557