

Healthcare Information & Decision Equation: **Information → Decision → Action → Outcome**
 Is it true → Is it useful → Is it usable?

Definitions

- **Secondary Source:** An information source that applies primary and/or secondary studies (e.g., guidelines, disease management protocols, cost-effectiveness studies)
- **Clinical guidelines:** Systematically developed statements to assist practitioners and patients in choosing appropriate healthcare for specific conditions per the Institute of Medicine (IOM). The best guidelines are based on evidence-based principles. Accurately predicting outcomes requires reliable information.

IOM's 8 Desirable Attributes Of Clinical Guidelines

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| <ul style="list-style-type: none"> • Validity • Reproducibility • Clinical Applicability • Clinical Flexibility | <ul style="list-style-type: none"> • Clarity • Documentation • Multidisciplinary Process • Plans for Review |
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Key Considerations for Critical Appraisal of Clinical Guidelines

1. Relevance to patients (clinically meaningful outcomes in mortality, morbidity, functioning, health-related quality of life, symptom relief)
2. Currency of information
3. Development involved people with appropriate perspectives
4. Evidence-based using systematic methods, and evidence was rigorously critically appraised as appropriate to the clinical question
5. Strength of evidence is disclosed
6. Recommendations and options are provided along with key information
7. Meets patients needs and accommodates different values and preferences
8. Limitations are disclosed
9. No other issues (eg, ethical issues, external requirements, etc) that would preclude adoption of the guideline
10. Likelihood of successful implementation and sustainability
11. Measurability
12. Impacts are reasonable (eg, patient outcomes, organizational impacts)
13. Mechanisms for updating the guideline if new evidence is available

Beware of low quality guidelines - review of 431 clinical guidelines:

- 82% did not apply explicit criteria to grade evidence
 - 87% did not report whether a systematic search of the literature was performed
 - 67% did not describe the type of professionals involved in the development of the guideline
- PMID: 10675167

You will need to critically appraise and audit all secondary sources prior to adopting. Look for—

- Method for evidence grading and rating of recommendations. Common problem is “upgrading” of evidence, i.e., rating lower quality evidence as of higher quality. Example: one guidelines group rates the evidence from multiple low-quality studies as Level II (Strong Evidence)
- Systematic analysis of evidence (obtaining, critically appraising, grading and synthesizing evidence) to minimize bias

See **Delfini Pearls & Tools** for critically appraising and for auditing.