Evidence Rating Tool

Evidence | Definition
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Level 1 | Randomized clinical trials or meta-analyses of multiple clinical trials with substantial treatment effects
Level 2 | Randomized clinical trials with smaller or less significant treatment effects
Level 3 | Prospective, controlled, nonrandomized cohort studies
Level 4 | Historic, nonrandomized cohort or case-control studies
Level 5 | Case series; patients compiled in serial fashion, control group lacking
Level 6 | Animal studies or mechanical model studies
Level 7 | Extrapolations from existing data collected for other purposes, theoretical analyses
Level 8 | Rational conjecture (common sense); common practices accepted before evidence-based guidelines

Research/Non-Research Terms Glossary

CLINICAL PRACTICE GUIDELINES
- Research and experiential evidence review that systematically develops statements that are meant to guide decision-making for specific clinical circumstances
- Evidence is appraised and synthesized from three basic sources: scientific findings, clinician expertise, and patient preferences.

EXPERIMENTAL STUDY (RANDOMIZED CONTROLLED TRIAL)
- Study participants (subjects) are randomly assigned to either a treatment or control (non-treatment) group.

Types of Experimental Studies:
**Blind**: neither subject nor investigator knows which treatment subject is receiving.

**Double-blind**: neither subject nor investigator knows which treatment subject is receiving.

**Non-blind**: both subject and investigator know which treatment subject is receiving; used when it is felt that the knowledge of treatment is unimportant.

**EXPERT OPINION, CASE STUDY, LITERATURE REVIEW**
- Opinion of a nationally recognized expert based on non-research evidence (includes case studies, literature review, or personal experience).

**META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS**
- Quantitatively synthesizes and analyzes results of multiple primary studies addressing a similar research question
- Statistically pools results from independent but combinable studies
- Summary statistic (effect size) is expressed in terms of direction (positive, negative, or zero) and magnitude (high, medium, small)

**META-SYNTHESIS**
- Research technique that critically analyzes and synthesizes findings from qualitative research
- Identifies key concepts and metaphors and determines their relationships to each other
- Aim is not to produce a summary statistic, but rather to interpret and translate findings

**NON-EXPERIMENTAL STUDY**
- No manipulation of the independent variable.
- Can be descriptive, comparative, or relational.
- Often uses secondary data.
- Findings must be considered in light of threats to validity (particularly selection, lack of severity or co-morbidity adjustment).

**ORGANIZATIONAL**
- Review of quality improvement studies and financial analysis reports
- Evidence is appraised and synthesized from two basic sources: internal reports and external published reports.
- Internal Practice Survey
- Community Practice Survey
QUALITATIVE STUDY
• Explorative in nature, such as interviews, observations, or focus groups.
• Starting point for studies of questions for which little research currently exists.
• Sample sizes are usually small and study results are used to design other studies that are more objective and quantifiable.

QUASI-EXPERIMENTAL STUDY
• Always includes manipulation of an independent variable
• Lacks either random assignment or control group.
• Findings must be considered in light of threats to validity (particularly selection)

SYSTEMATIC REVIEW
• Research review that compiles and summarize evidence from research studies related to a specific clinical question
• Employs comprehensive search strategies and rigorous appraisal methods
• Contains an evaluation of strengths and limitations of studies under review