**Yale New Haven Health**

Nursing Research and Evidence-Based Practice Committee

**Non-Research Literature Appraisal Tool**

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| Article Number | Author(s):  Article Title:  Journal:  Year Published: Volume: Number: Pages Numbers: | |
| **Level of Evidence and Grading: Fill in after completing appraisal (see Appendix A and B)** | | |
| Level of Evidence (Circle one): I II III IV V | | Quality Grade (Circle one): High Good Low |
| Is this a reputable source of evidence? Yes ⎕ No ⎕ | | |

| **Appraisal Category (check category)** | **Summary of Publication** | **Appraisal** |
| --- | --- | --- |
| ☐ **Clinical Practice Guidelines:** Systematically developed recommendations from nationally recognized experts based on research evidence or expert consensus panel.  ☐ **Consensus/Position Statement:** Systematically developed recommendations based on research and nationally recognized expert opinion that guides members of a professional organization in decision-making for an issue of concern. | Write a brief summary with key points | Were types of evidence used identified? ☐ yes ☐no  Were appropriate stakeholders/disciplines involved in the development of recommendations? ☐ yes ☐no  Are groups/population to which recommendations apply and do not apply clearly stated? ☐ yes ☐no  Have potential biases been eliminated? ☐ yes ☐no  Were recommendations valid (reproducible search, expert consensus, independent review, current, and level of supporting evidence identified for each recommendation)? ☐ yes ☐no  Were recommendations supported by evidence? ☐ yes ☐no  Are recommendationsclear? ☐ yes ☐no |

| ☐ **Literature Review:** Summary of published literature without systematic appraisal of evidence quality or strength. | Write a brief summary with key points | Is subject matter under review clearly stated? ☐ yes ☐no  Is relevant, timely literature included (most sources within last 5 years or seminal work)? ☐ yes ☐no  Is there a meaningful analysis of the conclusions in the literature? ☐yes ☐no  Are gaps in the literature identified? ☐ yes ☐no  Are recommendations for practice clear? ☐ yes ☐no |
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| 􏰀 **Expert Opinion:** Opinion of one or more individuals based on clinical expertise. | Write a brief summary with key points | Is the author qualified to give an expert opinion? (Credentials, job title, publications, presentations, etc) ☐ yes ☐no  Is author’s opinion based on scientific evidence? ☐ yes ☐no  Is the author’s opinion clearly stated? ☐ yes ☐no  Are potential biases acknowledged? ☐ yes ☐no |
| **Organizational Experience:**  **􏰀 Quality Improvement:** Cyclical method to examine organization-specific processes at the local level.  **􏰀 Financial Evaluation:** Economic evaluation that applies analytic techniques to identify, measure, and compare the cost and outcomes of two or more alternative programs or interventions.  **􏰀 Program Evaluation:** Systematic assessment of the processes and/or outcomes of a program and can involve both quantitative and qualitative methods. | Write a brief summary with key points and include: setting, sample description (size, characteristics), methods used, and results. | Was the aim of the project clearly stated? ☐ yes ☐no  Was the method adequately described? ☐ yes ☐no  Were process or outcome measures identified? ☐ yes ☐no  Were results adequately described? ☐ yes ☐no  Was interpretation clear and appropriate? ☐ yes ☐no  Are components of cost/benefit analysis described? ☐ yes ☐no ☐ n/a |
| **􏰀 Case Report:** In-depth look at a person, group, or other social unit. | Write a brief summary with key points | Is purpose of case report clearly stated? ☐ yes ☐no  Is the case report clearly presented? ☐ yes ☐no  Are the findings supported by relevant evidence?  ☐ yes ☐no  Are the recommendations clearly stated and linked to the findings? ☐ yes ☐no |
| **Community Standard, Clinician Experience, or Consumer Preference**  **􏰀 Community Standard:** Current practice for comparable settings in the community  **􏰀 Clinician Experience:** Knowledge gained through practice experience  **􏰀 Consumer Preference:** Knowledge gained through life experience | Write a brief summary with key points and include:  Information source(s):  Number of sources: | Do sources of information have credible experience? ☐ yes ☐no  Are opinions are clearly stated? ☐ yes ☐no ☐ n/a  Are identified practices consistent? ☐ yes ☐no ☐ n/a |

Revised 1/6/17

**Appendix A: Study Designs by Level of Evidence**

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| **Level I Evidence** | |
| **Systematic Review** | A summary of evidence, typically conducted by an expert or expert panel on a particular topic, that uses a rigorous process (to minimize bias) for identifying, appraising and synthesizing studies to answer a specific clinical question and draw conclusions about the data. |
| **Meta-Analysis** | A process of using quantitative methods to summarize the results from multiple studies obtained and critically reviewed using a rigorous process (to minimize bias) for identifying, appraising and synthesizing studies to answer a specific question and draw conclusions about the data gathered. The purpose of the process is to gain a summary studies (i.e. a measure of a single effect) that represents the effect of the intervention across multiple studies. |
| **Randomized Controlled Trial (RCT)** | A true experiment, (i.e., one that delivers an intervention or treatment), the strongest design to support cause and effect relationships, in which subjects are randomly assigned to control and experimental groups. |
| **Level II Evidence** | |
| **Quasi-experiments** | Design that test the effects of an intervention or treatment but lacks one or more characteristics of a true experiment (e.g. random assignment; control or comparison group) |
| **Level III Evidence** (Non Experimental) | |
| **Cohort Study** | Longitudinal study that begins with the gathering of two groups of patients (the cohort), one that received the exposure (e.g. to a disease) and one that does not, and then following these groups over time (prospective) to measure the development of different outcomes (diseases). |
| **Case-Control Study** | A type of research that retrospectively compares characteristics of an individual who has a certain condition (e.g., hypertension) with one who does not (i.e., a matched control or similar person without hypertension); often conducted for the purpose of identifying variables that might predict the condition (e.g., stressful lifestyle, sodium intake). |
| **Cross Sectional Study** | A study designed to observe an outcome or variable at a single point in time, usually for the purpose of inferring trends over time. |
| **Correlational Descriptive Study** | A study that is conducted for the purpose of describing the relationship between two or more variables. |
| **Correlational Predictive Study** | A study that is conducted for the purpose of describing what variables predicts a certain outcomes. |
| **Descriptive Study** | Studies conducted for the purpose of describing the characteristics of certain phenomena or selected variables. |
| **Qualitative Study** | Research that involves the collection of data in a nonnumeric form, such as personal interviews, usually with the intention of describing a phenomenon. |
| **Level IV Evidence** | |
| **Clinical Practice Guidelines/ Consensus Panels** | Opinion of respected authorities and/or nationally recognized expert committees/consensus panels based on scientific evidence i.e. National Guideline Clearinghouse |
| **Level V Evidence** (Based on experiential and non-research evidence) | |
| **Case Reports** | Reports that describe the history of a single patient, or a small group of patients, usually in the form of a story. |
| **Case Study** | An intensive investigation of a case involving a person or small group of persons, an issue or an event. |
| **Expert Opinion/ Manufacturer’s Recommendations** |  |
| Melnyk, B. & Fineout-Overholt,, E. (2011). *Evidence-based practice in nursing and healthcare: A guide to best practice (2nd Ed.).* Philadelphia: Lippincott Williams and Wilkins. | |

**I A**

**S ((A)**

**II (B)**

**III (C)**

**IV (D)**

**V (E)**

**VI (M)**

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| **Level of Evidence** | **Type of Evidence** |
| **Strongest**  I (A) | Evidence from systematic review or meta-analysis of multiple controlled studies with results that consistently support a specific action, intervention or treatment |
| II (B) | Evidence from at least one well designed controlled study, randomized & non-randomized, with results that support a specific action, intervention or treatment |
| III (C) | Evidence from qualitative studies, descriptive or correlational studies, integrative reviews or randomized controlled trials with inconsistent results |
| IV (D) | Evidence from peer reviewed professional organizational standards, with clinical evidence to support recommendations; Includes non-experimental studies |
| V (E)  **Weakest** | Evidence from theory based evidence from expert opinion or multiple case reports; Interpretation of non-research based information by experts |
| VI (M) | Manufacturers’ recommendations only |

Based on: AACN’s evidence-leveling system

Armola, R.R., Bourgault, A.M., Halm, M.A., Board, R.M, Bucher, L, Harrington, L., Heafey, C… & Medina, J. (2009). Upgrading the American Association of Critical-Care Nurses’ evidence-leveling hierarchy. *American Journal of Critical Care, 18*, 405-40.

**Appendix B: Grading the Evidence**

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| **Level of Evidence** | **Quality Grading Guides** |
| **Level I** | **A High quality**: consistent results, sufficient sample size, adequate control, and definitive conclusions; consistent recommendations based on extensive literature review that includes thoughtful reference to scientific evidence.  **B Good quality:** reasonably consistent results, sufficient sample size, some control, and fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence  **C Low quality or major flaws:** little evidence with inconsistent results, insufficient sample size, conclusions cannot be drawn. |
| **Level II** |
| **Level III** |
| **Level IV** | **A High quality:** well-defined, reproducible search strategies; consistent results with sufficient numbers of well-designed studies; criteria-based evaluation of overall scientific strength and quality of included studies, and definitive conclusions  **B Good quality:** reasonably thorough and appropriate search; reasonably consistent results, sufficient numbers of well-designed studies, evaluation of strengths and limitations of included studies, with fairly definitive results  **C Low quality or major flaws:** undefined, poorly defined, or limited search strategies; insufficient evidence with inconsistent results, conclusions cannot be drawn |
| **Level V** | **A High quality:** expertise is clearly evident.  **B Good quality:** expertise appears to be credible.  **C Low quality or major flaws**: expertise is not discernible or is dubious. |

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