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Rady Faculty of Health Sciences | University of Manitoba

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Department of Family Medicine Residency Program

PEARLS Worksheet for Critiquing Guidelines

Modified from the "PEARLS for Residents Critical Appraisal Worksheet" from the College of Family Physicians of Canada.

Resident Name: _____
Faculty Supervisor: _____
Guideline: _____
Date: _____

Clinical Practice Guidelines consist of expert recommendations for usual medical care, and should be based on the best available evidence. This is different than a "standard" which is a minimum level of quality established by a professional body. It is also different than "standard of care" which is a legal term meaning what a minimally competent physician in the same field would do under similar circumstances. Clinical Practice Guidelines We Can Trust by the Institute of Medicine March 2011 provides standards (in the sense of minimum levels of quality) for evaluating guidelines. In this worksheet those standards are in italics. In this PEARLS exercise the resident is required to critique a clinical practice guideline.

Links connect to JAMAevidence User's Guide to the medical literature. You will need to sign in to the University of Manitoba Library to access them.

Section A. Are the findings trustworthy (i.e., likely to be valid)?

1. Are the conflicts of interest of the Guideline Development Group stated?

(conflict of interest definition)

STANDARD 1 - Establishing transparency

1.1 The processes by which a CPG is developed and funded should be detailed explicitly and publicly accessible.

STANDARD 2 - Management of conflict of interest (COI)

2.1 Prior to selection of the Guideline Development Group (GDG), individuals being considered for membership should declare all interests and activities potentially resulting in COI with development group activity, by written disclosure to those convening the GDG.

- *Disclosure should reflect all current and planned commercial (including services from which a clinician derives a substantial proportion of income), non-commercial, intellectual, institutional, and patient/public activities pertinent to the potential scope of the CPG.*

2.2 Disclosure of COIs within the GDG

- *All COI of each GDG member should be reported and discussed by the prospective development group prior to the onset of their work.*
- *Each panel member should explain how their COI could influence the CPG development process or specific recommendations.*

2.3 Divestment

- *Members of the GDG should divest themselves of financial investments they or their family members have in, and not participate in marketing activities or advisory boards of, entities whose interests could be affected by CPG recommendations.*

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2.4 Exclusions

- *Whenever possible GDG members should not have COI.*
- *In some circumstances, a GDG may not be able to perform its work without members who have COIs, such as relevant clinical specialists who receive a substantial portion of their incomes from services pertinent to the CPG.*
- *Members with COIs should represent not more than a minority of the GDG.*
- *The chair or co-chairs should not be a person(s) with COI.*
- *Funders should have no role in CPG development.*

2. (a) Can you tell which stakeholders are represented on the Guideline Development Group and (b) is it an appropriate makeup? *(Patients, family physicians, specialists, methodologists, professional associations, government, industry?)*

STANDARD 3 - Guideline development group (GDG) composition

3.1 The GDG should be multidisciplinary and balanced, comprising a variety of methodological experts and clinicians, and populations expected to be affected by the CPG.

3.2 Patient and public involvement should be facilitated by including (at least at the time of clinical question formulation and draft CPG review) a current or former patient and a patient advocate or patient/ consumer organization representative in the GDG.

3.3 Strategies to increase effective participation of patient and consumer representatives, including training in appraisal of evidence, should be adopted by GDGs.

3. Were the recommendations based on a systematic review of the literature? (systematic review definition) (how a systematic review should be done)

STANDARD 4 - Clinical practice guideline–systematic review intersection

4.1 CPG developers should use systematic reviews that meet standards set by the Institute of Medicine's Committee on Standards for Systematic Reviews of Comparative Effectiveness Research.

4.2 When systematic reviews are conducted specifically to inform particular guidelines, the GDG and systematic review team should interact regarding the scope, approach, and output of both processes.

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4. Is each recommendation given a grade for its underlying evidence with supporting references? (using the GRADE approach to assessing levels of evidence)

STANDARD 5 - Establishing evidence foundations for and rating strength of recommendations

5.1 For each recommendation, the following should be provided:

- *An explanation of the reasoning underlying the recommendation, including:*
  - *A clear description of potential benefits and harms.*
  - *A summary of relevant available evidence (and evidentiary gaps), description of the quality (including applicability), quantity (including completeness), and consistency of the aggregate available evidence.*
  - *An explanation of the part played by values, opinion, theory, and clinical experience in deriving the recommendation.*
- *A rating of the level of confidence in (certainty regarding) the evidence underpinning the recommendation.*
- *A rating of the strength of the recommendation in light of the preceding bullets.*
- *A description and explanation of any differences of opinion regarding the recommendation.*

5. How do the authors address the following standards in their guideline?

STANDARD 6 - Articulation of recommendations

6.1 Recommendations should be articulated in a standardized form detailing precisely what the recommended action is and under what circumstances it should be performed.

6.2 Strong recommendations should be worded so that compliance with the recommendation(s) can be evaluated.

STANDARD 7 - External review

7.1 External reviewers should comprise a full spectrum of relevant stakeholders, including scientific and clinical experts, organizations (e.g., health care, specialty societies), agencies (e.g., federal government), patients, and representatives of the public.

7.2 The authorship of external reviews submitted by individuals and/or organizations should be kept confidential unless that protection has been waived by the reviewer(s).

7.3 The GDG should consider all external reviewer comments and keep a written record of the rationale for modifying or not modifying a CPG in response to reviewers' comments.

7.4 A draft of the CPG at the external review stage or immediately following it (i.e., prior to the final draft) should be made available to the general public for comment. Reasonable notice of impending publication should be provided to interested public stakeholders.

STANDARD 8 - Updating

8.1 The CPG publication date, date of pertinent systematic evidence review, and proposed date for future CPG review should be documented in the CPG.

8.2 Literature should be monitored regularly following CPG publication to identify the emergence of new, potentially relevant evidence and to evaluate the continued validity of the CPG.

8.3 CPGs should be updated when new evidence suggests the need for modification of clinically important recommendations. For example, a CPG should be updated if new evidence shows that a recommended intervention causes previously unknown substantial harm, that a new intervention is significantly superior to a previously recommended intervention from an efficacy or harms perspective, or that a recommendation can be applied to new populations.

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Section B & C. What were the results & Can the results be applied to your patients?

6. Which recommendations are worthy of consideration as future quality improvement projects for your clinic or practice?

You should consider the following factors:

- What is the grade of evidence of the recommendation?
- Is the problem being addressed common in your setting?
- Can the recommendation be practically implemented?
- What is the expected improvement in outcomes for your population – both based on the frequency of the problem in your population and the effectiveness of the intervention (ie NNT or equivalent)?
- Is the recommendation sufficiently clear to be able to measure application?
- Are the physicians in the practice convinced of the benefit of implementing the recommendation?