

PEN[®] Author's Training Webinar – Overview of Quick Update Process for PEN[®] content

See Author's Training Webinars #1 and #2 at:

https://www.youtube.com/channel/UCOlaa_SlzONK_njlej70m9A

(Note: this is based on PEN Evidence-based process. For PEN GRADE process, refer to [PEN GRADE Process Guide](#))

1. PEN Practice questions:

- a. Focus on foreground questions (PICO = Population, Intervention, Comparison, Outcome)
- b. Look at what is currently in PEN on the topic
 - Can similar PICO questions be combined?
 - Consider broad, patient important outcomes (e.g. mortality, morbidity, functional status, quality of life)
- c. Ensure question is relevant – focuses on a dietary issue within a dietitian's scope of practice

Additional Resources: PEN[®] Author and Reviewer's Guide: [PEN Step 2: Ask](#)

2. Conduct a Literature Search

- a. Define your topic – PICO question
- b. Identify main concepts – focus on Population and Intervention
- c. Find other search terms – use [MeSH database](#)
- d. Search using [PubMed 'Clinical Queries'](#) to identify systematic reviews
- e. When an article is identified, look for 'Similar articles' and MeSH terms used in the article
- f. Document the Search Strategy on the [Search Strategy Worksheet](#)

Additional Resources:

PEN[®] Author and Reviewer's Guide: [Step 3 Acquire evidence](#)

PEN[®] Authors Training Module – [Searching PubMed Module](#)

3. Hierarchical Literature Retrieval to identify literature

Only incorporate high quality secondary research (e.g. systematic reviews [SRs], guidelines that used a SR process) or high quality / impactful primary research (i.e. high quality work that could affect practice recommendation).

Hierarchical literature approach:

- a. Secondary sources:
 - If more than 1 SR is identified, pick only one if it addresses all important outcomes
 - Consider: most recent, highest quality and SR that most closely represents PICO
 - Meta-analyses are preferred over narrative summary of results
 - The highest quality SR uses GRADE methodology. Otherwise, quality of SRs can be assessed using [Amstar 2](#) checklist
 - If no high quality secondary research, a recent narrative review can be used to summarize primary research. Such a review should include a search strategy and be balanced and objective.

Use Search Strategy to document reasons for excluding other reviews / studies that were identified using the hierarchical literature approach

- b. Primary sources:

Include high quality / impactful primary study(s) only if:

- it is more recent than the SR
- it reports an important outcome not included in the SR
- no review with search strategy is available

The quality of a study can be assessed using [Cochrane risk of bias tool](#).

Additional Resources: PEN[®] Author and Reviewer's Guide: [PEN Step 3: Acquire](#)

4. **Consider International Recommendations**
 - a. Relevant international and national guidelines should be incorporated into evidence statements (applicable to all of our partner countries – Australia, Canada and the United Kingdom). This should include their recommendation and a description of the level of evidence used to develop their recommendation.
 - Government guidelines: [NHMRC](#) (Australia), [NICE](#) (UK) and [CTFPHC](#) (Canada)
 - Clinical practice guidelines from national professional associations: Australian, Canadian and/or UK/European associations (e.g. cardiology, diabetes, gastroenterology, nephrology etc.)
 - [TRIP database](#) can help identify guidelines and reviews
 - See also [PEN International Guidelines Collection](#)

5. **Writing the Evidence Section** – This section is comprised of a lettered list. Each lettered point is known as an 'Evidence Statement' and describes a single article in a concise and clear format.
 - a. For all studies, focus on reporting relevant, patient important outcomes (e.g. mortality, morbidity, functional status, quality of life) rather than every reported outcome. Use surrogate outcomes (e.g. biomarkers, bone density) only if no information is available on patient important outcomes.
 - Refer to International Consortium of Health Outcomes: <http://www.ichom.org/medical-conditions/>
 - b. For systematic reviews, note the date of the search, provide a brief description of the question addressed, number and type of articles and participants included (e.g. 12 RCTs (n=375 adults)), then intervention/comparison and outcomes.
 - c. For primary studies, provide a brief description of population, intervention and results. Detailed inclusion / exclusion criteria does not generally need to be reported. Methods can be incorporated into results (e.g. body fat as assessed by DEXA decreased by 12%)
 - d. Quality assessment / critical appraisal of the studies should be described in the evidence statement, which will ultimately inform the Grade of Evidence.

 - e. **Comments and Rationale** – Include any comments (e.g. additional details related to the evidence) and rationale (e.g. proposed mechanism of action) if relevant. These sections are referenced and will help inform the Remarks.

 - f. **Key Practice Points (KPPs)** – In many ways, KPPs may be considered the 'abstract' of the Evidence, Comments & Rationale sections. They should be written in user-friendly language for dietitians. They should succinctly summarize the evidence statements and include a practice recommendation if possible. Include the following:
 - **Recommendation** – 1 or 2 sentence take-home message. Include a practice recommendation (e.g. no recommendation, recommendation for or against an intervention) if feasible. This is not graded as it is based on the graded evidence (and there may be different grades in the evidence).
 - Country-specific recommendations from clinical practice guidelines or health government agency can be included in the recommendation if it is not reflected in the overall PEN recommendation (E.g. [Do dietary supplements reduce the symptoms of premenstrual syndrome \(PMS\)?](#))
 - **Evidence Summary** – a succinct summary (include the size of the effect where possible) and critical appraisal of the Evidence section. Evidence summaries are given a grade of evidence using the [PEN Evidence Grading Checklist](#). Note that if conclusions in the evidence summary have more than one grade of evidence (e.g. due to different interventions or outcomes), the grade should be indicated after each conclusion.
 - **Remarks** (optional) can include:
 - context for the topic (e.g. from Rationale or Comments sections of the question)

- implementation considerations (e.g. safety, risk/benefit ratio, convenience and burden, costs, nutrient information, patients' value and preferences, health status, co-morbidities, lifestyle culture, etc.)
 - considerations related to subgroups, monitoring and evaluation, need for future research
- g. **References** – Use the accepted PEN format. This is easily done in PubMed by clicking on “cite – choose Format: NLM, then copy and paste into a Word document and add the PubMed URL. If reference citation software is used, select 'National Library of Medicine' as the citation style and then add the PubMed URL.

Additional Resources:

PEN® Author and Reviewer's Guide: **Error! Hyperlink reference not valid.** and [PEN Step 5: Apply](#)

Examples of PEN Questions with Search strategies:

Q: [What is the efficacy and safety of herbal medicines used for inducing or shortening labour?](#)

Q: [What nutrients and dietary factors are associated with an increased risk of developing colorectal, colon and rectal cancer?](#)

Q: [What is the effectiveness of strategies to manage nutrition-related symptoms and drug-related side-effects of Parkinson's disease \(PD\) including constipation, dysphagia, nausea, vomiting, anorexia, delayed gastric emptying, orthostatic hypotension and dyskinesias?](#)