GEMs Editing Handbook

November 2021

Getting Ready

GEMs should be ready for publication within *two revisions*. To achieve this goal, the following strategy should be utilized.

First Draft Review

1. Review the draft for areas that need major revisions (typically in the methods and results sections). Rather than make line edits, use the comment bubble to provide guidance for what is needed in the section.
2. Use the comment bubble for any clarifying questions throughout the manuscript.
3. Check to make sure information is not duplicated throughout the GEM. Provide guidance on the best section to place information if it is repeated throughout the table.
4. Check the Key Takeaway for accuracy. Provide comments if clarification is needed.
5. You can line-edit any sections that do not need major revisions.
    a. Note: If only line edits are needed, you can make these edits and pass them along to the Project Coordinator.

Second Draft Review

1. Review the draft to ensure major revisions were understood and incorporated. If additional guidance and clarification is needed, include more clarifying comments. Make sure these comments are specific, as it is the goal that this is the last time you are providing comments back to the author/Local Editor team.
2. Check to make sure information is not duplicated throughout the manuscript with the new edits. If so, delete the information from all areas except one.
3. Check the Key Takeaway for accuracy. Make line edits if clarification is needed.
4. Line-edit the portions of the manuscript that you have not provided comments for.
    a. Note: If only line edits are needed, you can make these edits and pass them along to the Project Coordinator.

Third Draft Review

Line-edit the draft as you ensure all requested edits were incorporated. At this point, there are three options:

1. If only minor edits for clarity and style are needed, the manuscript is ready for publication and can be sent to the Project Coordinator.
2. If there are just a few areas the author is missing, the reference can be reviewed for the final needed details and added by the Deputy Editor.
3. If major edits are still needed, email the GEMs Project Coordinator, explaining which edits the author/Local Editor have made and what is still missing. The Project Coordinator will work with the Local Editor to provide support for the program to complete the manuscript.

Potential PURL Review

Once the GEMs draft is finalized and ready to be published, analyze the study to determine if it is a potential PURL. The PURL criteria are:

1) Valid – Are the study and findings scientifically valid?
2) Relevant – Is the topic relevant to family medicine?

3) Practice Changing Potential – If valid and relevant, is this new to our practice?
4) Applicability to Family Medicine – Can this new practice be performed in a medical setting by a family physician?
5) Immediacy and Implementation – Can it be implemented immediately?
6) Clinically meaningful outcomes – Are the outcomes patient-oriented? Do the benefits outweigh the harms?

If you feel the GEM study potentially meets these PURL criteria, the study can be nominated by sending the completed GEMs table to the PURLs Project Manager at purls@fpin.org.

GEMs Deputy Editor Checklist

GEMs Title, Article Title, and Citation

- ☐ The GEMs title is *different* than the title of the reference.
- ☐ The title accurately and clearly conveys the topic and/or result of the reference.
- ☐ The title is not too long (ideally no more than 10 words, but definitely no more than 15).
- ☐ The title is appropriate and professional.
- ☐ The reference's title is stated separately from the citation.
- ☐ The citation is included in AMA format.

Key Takeaway

- ☐ The Key Takeaway is an accurate presentation of the primary outcome.
- ☐ This section is presented in one or two complete sentences.
- ☐ It is written in present tense and active voice.
- ☐ The magnitude of effect is provided, if applicable.
- ☐ Uncommon abbreviations should be spelled out on first use.

Study Design

- ☐ The study design is stated as a simple phrase.
- ☐ Meta-analysis and systematic reviews also include the design and number of included studies.

Level of Evidence

- ☐ The level of evidence has been clearly and accurately identified as a number (e.g., STEP 1).
- ☐ The level of evidence is downgraded if there are flaws in the methodology or major limitations.
- ☐ If the STEP is downgraded, a brief explanation is provided in parentheses.

Brief Background Information

- ☐ This section provides information that is needed to understand the GEM topic.
    - ☐ What research has been done on the topic/What is already known?
    - ☐ Does conflicting evidence exist? Is this research filling in a gap?
    - ☐ Is this a common concern in primary care? Or how is this applicable to primary care physicians?
- ☐ The section is included as 2 to 5 complete sentences.
- ☐ This section *DOES NOT* reference any sources other than the reference identified.
- ☐ Uncommon abbreviations should be spelled out on first use.

Patients, Intervention, Control, Outcome

- ☐ PICO items are provided as brief phrases.
- ☐ This information is kept brief by avoiding information that is included elsewhere in the manuscript.
- ☐ Uncommon abbreviations should be spelled out on first use.
- ☐ The "P" does not include specific demographic results (e.g., 94% male), but rather includes the general inclusion criteria (e.g., adult men with hypertension).
- ☐ The "I" identifies the medication, therapy, or specific population (in cohort studies) being studied.
- ☐ The "C" identifies what the medication/therapy is compared to (e.g., placebo).
    - ☐ If a diagnostic study is being summarized, the gold standard should be the control. If the gold standard is not used, state the name of the test and that it is not the gold standard.
- ☐ The "O" states the primary and secondary outcomes as phrases.
    - ☐ The specific outcome is identified, not the scale/measure (e.g., pain). The scale can be presented and discussed in the methods section.
    - ☐ The identified outcomes are all discussed in the results section and all the outcomes presented in the results section are included in the PICO.

Methods

- ☐ The methods section expands on the PICO section, while remaining brief.
    - ☐ The "P" expanded on to include inclusion and exclusion criteria, patient demographics, severity of diagnosis, diagnosis definition etc.
        - This information is provided without getting too long/wordy. No long lists of inclusion or exclusion criteria, rather just the most important.
    - ☐ The "I" is expanded on providing the appropriate intervention information:
        - Medications: Dosage, frequency, route, duration
        - Therapies/Non-pharmacologic treatment: Treatment/therapy protocol, frequency, duration
    - ☐ The "C" is expanded on providing the appropriate comparator information:
        - Medications: Dosage, frequency, route, duration
        - Therapies/Non-pharmacologic treatment: Treatment/therapy protocol, frequency, duration
        - Placebo or usual care: Simply state placebo or usual care
    - ☐ The "O" is expanded on to state how the outcomes were measured. If this includes scales, the following are included:
        - Name of scale
        - What the scale measures
        - The range of possible scores
        - What the highest score vs the lowest score indicates
        - Minimal clinically important difference (MCID) is included if available.
- ☐ Important information on the way the study was conducted is included.
- ☐ Uncommon abbreviations should be spelled out on first use.

- ☐ The methods section is presented as bullet points and written in active voice in past tense.
- ☐ The organization/order of the bullet points makes sense and "tells a story" when reading through the methods section.

Special Notes for Meta-Analyses and Systematic Reviews

- Much of the expanded PICO information will be presented as ranges, median, or means. It is fine to include information this way.
- The entire search protocol does not need to be discussed in depth. Rather the general inclusion/exclusion criteria used to conduct the search and the quality of the included studies can be stated.

Intervention/Comparator Number

- ☐ The number of participants identified in the intervention and comparator groups are correct.
- ☐ If there is more than one intervention or comparator, the number of individuals in each group are included as bullet points.
- ☐ This is the only place the number of participants is discussed, so it is not repeated elsewhere, such as in the methods.

Follow Up Period

- ☐ The follow up period is accurately identified based on the study design.
    - ☐ RCTs: How long the patients were followed after the intervention/comparator was administered.
    - ☐ Prospective cohort study: How long the patients were followed from the beginning of the study.
    - ☐ Retrospective cohort study: Were participants followed until they died, had a primary endpoint, or some other measure?
    - ☐ Meta-analysis and systematic reviews: This will be based on the design of the included studies and will likely be included as a range, median, or mean.

Results

- ☐ Primary outcomes are presented first.
    - ☐ Numerical and statistical results are presented for all primary outcomes.
- ☐ Secondary outcomes are presented second.
    - ☐ Numerical and statistical results only *must* be presented if there is a statistically significant result.
    - ☐ If the result is insignificant, the outcomes can simply be listed as insignificant. The statistical information can be provided if it is a surprising result and if the GEM is not too long.
- ☐ Reader-friendly statistics are used whenever possible (RR, MD, Confidence Intervals, P-values, etc.)
- ☐ The first time a statistical measure is used, it should be spelled out with the abbreviation in parentheses.
- ☐ P-values are only presented if Confidence Intervals are not available. If Confidence Intervals are available, p-values should not be included.
    - ☐ When Confidence Intervals are used, the confidence level should be included.

- ☐ Active voice and past tense are used (X decreased the risk of death more than Y).
- ☐ Data only has two significant figures when a decimal is included.
- ☐ Mean differences and standardized mean differences are only used for continuous variables and discrete variables.
- ☐ Odds ratios, risk ratios, and number needed to treat are only used for dichotomous variables.
- ☐ Results in diagnostic studies should contain the following:
    - ☐ Likelihood ratios
    - ☐ Sensitivity
    - ☐ Specificity
- ☐ Predictive values are only used for population-based screenings.
- ☐ Meta-analyses include pooled outcomes (if results were not pooled, the reason why should be stated in the limitations).
    - ☐ Each result should have the number of trials and number of patients.

Limitations

- ☐ Bullet points are used.
- ☐ The bullet points are written in active voice and in past tense.
- ☐ If the Level of Evidence was downgraded, limitation causing this must be included.
- ☐ If disease-oriented evidence, rather than patient-oriented evidence, is only provided (lab values, blood pressure, etc.) this should be listed as limitation.