FAMILY MEDICINE RESIDENCY PROGRAM

Systematic Review Proposal Instructions

Proposals are due the Fourth Friday of Block 9
How to write a proposal for a systematic review project

**Systematic Review Projects**: These are resident projects that involve using a literature review to inform the creation of an associated deliverable (the “Evidence-Based Product” or EBP). Some of these projects include:

- Literature review and clinical tool
- Literature review and workshop
- Literature review and virtual patient
- Literature review and pre-approved deliverable

**Important**: The literature review you write is based on the clinical topic you choose and not on the EBP you choose to do. For example, if you do a virtual patient on migraines, your literature review is on migraines, not on virtual patients.

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**Residents’ proposals must adhere to the following specifications:**

- **Title Page with author’s name(s)** – see page 6
- **Preceptor signature** – see page 6

**SECTIONS:**

- **Introduction**
- **Background/literature review**
- **Review question(s)**
- **Methods and Evidence-Based Product design section**
- **Timeline**
- **References**

- **Font**: Arial, Calibri, Cambria, Times New Roman
- **Font Size**: 11 or 12 point font
- **Margins**: 1 inch margins all around
- **Page numbering**: expressed as X of Y

- If more than one resident is working on a project, the “**Team Charter**” must be completed and included as an appendix

  - **Please note**: only family medicine residents and their Project Preceptors may work as a project team and submit a final report.
Sections that your proposal should contain: this information is largely derived from the Systematic Review Handbook\(^1\).

1) **Introduction** – pitch your project to your readers, introduce it, and argue why it is important to family medicine?

The first section of your systematic review proposal is your introduction and it describes your topic. In this section, you should detail what you are studying and why are you studying it.

You should choose a topic that has not already been explored. If there is a recent review paper on your topic, you should either adjust your question so it is sufficiently different from the review or choose another topic. This is important – you do not want to get to the end of your residency and realize that your topic has already been explored by the Cochrane Collaboration or some other esteemed researchers, so it is crucial for you to identify your topic in your proposal.

2) **Background/Review of the literature**\(^2\) – what is your systematic review based on? Where does it come from?

- In this section, you provide readers with a brief literature review where you review and summarize some of the current literature relevant to your topic. Keep in mind:
  - Journal articles will be helpful in refining your research question
  - Your literature review helps you select statistics to use and sources of data
  - Avoid duplication of study by doing something new\(^3\)
  - Read each source and take note of important points related to your project
  - The information that you collect in your literature review is used to refine your research question, so you can address knowledge gaps and produce new research
  - This section ends with a description of the gap in the current literature that you will be addressing with your work
  - A thorough review of the literature is the most important step to any research endeavor. It provides the information necessary to clearly map the entire project

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\(^1\) **NOTE:** If you have any questions or concerns, you should contact your resident research training coordinators (RRTCs), Nathan Turley and Grace Perez at rtc@ucalgary.ca. If you are looking for additional information, please go to the Department of Family Medicine Research Webpage.

\(^2\) For more information on literature reviews, please see “How to write a literature review for a research proposal”. This document can be found on the Department of Family Medicine’s research webpage: [https://is.gd/JaoGR5](https://is.gd/JaoGR5)

\(^3\) Doing something “new” can take on many forms and does not preclude one from replicating a study in a new context or looking at it from a new angle. Remember, research requires creativity!
Developing a systematic review question – you need a review question to guide your review

The question you choose should be something that you are both interested in and something that fills gaps in the literature. You should consider how your systematic review will be useful to patients, improve patients’ care, help the field of family medicine, or satisfy some combination of these objectives.

Often, the question you are interested in has to be rephrased and broken down into several smaller, “Key Questions” to make it work as a systematic review⁴.

**PICO (Population, Intervention, Control/Comparator, Outcomes):** You can use the “PICO” method to drive the creation of your Key Questions.

**Note:** Your systematic review must start and finish within the tenure of your residency training. This means that if you have a literature review from another educational program (undergrad, etc.), you cannot submit it to satisfy the residency program’s scholarship requirements.

3) **Method and Design – how will you complete your project?**

In this section, you will plan the search strategy you will use to collect data on your topic and appraise its quality of evidence. All projects of this type will have a rigorous search and critical appraisal strategy. Your search strategy should include a list of initial keywords and a list of the search databases you will use. Your search strategy should be designed to address your review question or the key questions that make up your review question.

- The strategy that you take for your project should be systematic and compatible with the PRISMA approach to reviews: [http://www.prisma-statement.org/statement.htm](http://www.prisma-statement.org/statement.htm)
- Your final report will contain a PRISMA diagram
- Use the PICO (Patient Intervention Comparator Outcome) to determine your inclusion and exclusion criteria as well as your search terms
  - Create a table that lists and justifies your inclusion and exclusion criteria. See the SR Handbook for an example.
- Include the critical appraisal tool that you will use to review the quality of your included papers
  - Make sure that the critical appraisal tool you choose to use fits with the types of studies that will be included in your review.

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4) **Evidence-Based Product (EBP)**

Describe how you will share or make use of your findings by selecting one of the following EBP activities:

- Literature review and clinical tool
- Literature review and workshop
- Literature review and virtual patient
- Literature review and podcast
- Literature review and pre-approved deliverable

**Important:** Again, the literature review you write is based on the clinical topic you choose and not on the EBP you choose to do. For example, if you do a virtual patient on migraines, your literature review is on migraines, not on virtual patients.

5) **Timeline**

Propose a timeline for your project and chart out the various tasks you (and your team) will complete in the time you are working with. Your second scholarship project will run from the spring of your first year to the early winter of your second year of residency. The remainder of your residency will go by quickly, so it is important for you to plan ahead. Please display your timeline as a table like the one below:

<table>
<thead>
<tr>
<th>Item</th>
<th>Date completed by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethics application submission</td>
<td>Dates A – B</td>
</tr>
<tr>
<td>Data collection</td>
<td>Dates C – D</td>
</tr>
<tr>
<td>Data analysis</td>
<td>Dates E - F</td>
</tr>
<tr>
<td>Write final report</td>
<td>Dates G – H</td>
</tr>
<tr>
<td>Write abstract for Resident Scholarship Day</td>
<td>Dates I - J</td>
</tr>
</tbody>
</table>

*This timeline will be revisited in your progress report.*

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5 If you think there is another way to make use of or share your findings, contact your RRTC.
6) References

This section of your research proposal contains the list of works you used to write, among other things, your introduction, literature review, and methods section. Your references may include materials that you can refer to when writing the discussion section of your research paper or provide you with guidance while conducting your research. This is a preliminary list of articles that you have found and should grow as you get further into your research/systematic review.

Here are some examples and resources to help you with your citing and bibliography:

a. List all of your references and provide in-text citations where needed. Here are a couple examples:

i. **In-text citation**: “The road was asphalt now; it shimmered in the heat, and whenever it fell away before you, a mirage made it look like water. It was lined with orange-groves; dark shiny trees, golden with a part of last year’s crop, and snowy white with the new year’s blossoms” (Sinclair, 1927:30).


iii. **More info**: The Purdue Online Writing Lab (OWL) is an excellent resource for information on formatting references and writing. This website can be found at: [https://owl.english.purdue.edu/](https://owl.english.purdue.edu/)

iv. **Appendices** – surveys, figures, tables, etc. Again, OWL has information about appendices - [https://owl.english.purdue.edu/owl/resource/670/05/](https://owl.english.purdue.edu/owl/resource/670/05/)
Systematic Review Proposal

Resident Name(s)

Preceptor Name

Date of Submission

Preceptor Approval

I have spoken with the resident(s) listed on this proposal and I am familiar with its topic and search strategy. By signing here, I indicate my support for this systematic review proposal.

________________________________________  ________________________________
Signature  Date

NOTE: If you have any questions or concerns, contact your RRTCs at rrtc@ucalgary.ca