Introduction

The aim of this document is to outline the policies and procedures of the St. Michael's Hospital Health Sciences Library's systematic search services in support of knowledge synthesis activities such as systematic reviews, scoping reviews, realist reviews etc. The Health Sciences Library (“the Library”) supports clinician, staff, and student research through consultation and reference services, as well as teaching and learning opportunities through workshops and seminars.

Information specialists (IS) at the Library offer advanced support for researchers and clinicians conducting various types of literature reviews and knowledge syntheses. These services include:

- providing advice on various steps in conducting a systematic literature review;
- creating and documenting comprehensive literature searches;
- making software recommendations for citation and data management;
- writing the literature search methods for the manuscript according to PRISMA or other appropriate guidelines.

Policy Statement

The following policy statement outlines eligibility for the support of Information Specialists in the Health Sciences Library on systematic literature search projects, such as systematic reviews, scoping reviews, realist reviews, etc. Detailed procedures on how this policy is enacted are found in the associated procedures.

a) Internal Clients

Staff and physicians at St. Michael's Hospital may have their systematic searches conducted by an IS, at no cost, under the following circumstances:

- The principal investigator (PI) must be based at St. Michael's Hospital and have an appointment as a scientist, associate scientist, physician, or otherwise be responsible for leading and financially supporting research projects;
- The search is being conducted in direct support of Hospital business or activities, and not for personal reasons, on behalf of a third party, or for graded course work.

The Library supports students’ academic success through library workshops, online resource guides, drop-in office hours, and more. For more information on the Library's support for students, see: Appendix B: Search Strategy Feedback for Students.

b) External Clients

The Library offers similar search services to External Clients, but with an associated cost. Potential clients should contact the Library for current fees.
A detailed review protocol adhering to PRISMA-P guidelines (see References) must be completed before the first meeting. The initial consultation meeting (maximum one-hour) is free of charge, but subsequent meetings, and all work conducted, will be charged hourly (and calculated to the quarter hour). This includes the following:

- subsequent meetings after the initial consultation;
- background research to familiarize the IS with the subject;
- database searching;
- teleconferences;
- correspondence, emails, report writing.

A preliminary quote will be agreed upon by the Library and the external client and will be adhered to unless changes are agreed to by both parties. The client will be invoiced at the end of the entire process. Payments can be made by cash, cheque, or fund transfer.

Detailed time tracking of all work conducted by the Library will be available upon request.

The Library shall not be responsible for errors and/or misleading results arising from faulty data.

**Associated Procedure**

1. **Submit Request**

   The requester submits the initial request for library support via the online form. See: [http://hsict.libsurveys.com/SRsearchform](http://hsict.libsurveys.com/SRsearchform). This form is based on the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) guidelines and is considered the draft research protocol. More information can be found in our online Resource Guide; see: [https://guides.hsict.library.utoronto.ca/SMH/systematic](https://guides.hsict.library.utoronto.ca/SMH/systematic).

   Comprehensive searches require an iterative process with the research team; therefore, please contact us at least two months before the final search is required. Consultations and searches are conducted on a first-come, first-served basis.

2. **Meeting with the Principal Investigator & Research Team**

   An IS from the Library must meet with the PI and the research team, in order to establish parameters for the systematic search. It is important that the IS be included in team meetings to best understand the rationale and goals of the review.

   During the team meeting we will discuss the protocol and memorandum of understanding (see Appendix A: Memorandum of Understanding) along with:

   - timelines;
   - search concepts;
   - search strategy construction;
   - database selection;
   - citation management;
   - date or study design limits;
   - documentation;
   - co-authorship.

   The memorandum of understanding is signed by both the PI and the IS.

3. **Finalize Protocol**

   The original review protocol may be revised based on the meeting with the IS and the completed review protocol is submitted to the IS. We recommend that the team register the review in PROSPERO ([https://www.crd.york.ac.uk/prospero/](https://www.crd.york.ac.uk/prospero/)) and may recommend they consider publishing the protocol.

4. **Initial Search Strategy**
The IS will create a draft search strategy (generally in Ovid Medline) for the research team to review. A sample of 100-200 results will be provided so that the team can see the nature of the results.

The search will be revised based on team feedback. A subsequent meeting may be required.

At this point, upon request, a peer review of the Medline search strategy according to the PRESS Checklist (see References) can be conducted by another IS from the Library. The IS will communicate the result of the peer review with the team and revise accordingly.

Once all revisions are made, the PI must approve the final draft of the search strategy before the IS will move forward with the search process. Requests for revisions to the search after it has been approved by the PI will be treated as new search requests and will be placed at the end of the IS's work queue.

5. Search Completion and Results

The IS will complete the search in all of the agreed upon databases. The IS will provide the documentation of the search strategies, databases, limits, numbers of results, etc., such that they can be included in the appendix of a manuscript and in a PRISMA flowchart.

Duplicate removal will be carried out, time permitting; some duplicates will inevitably remain.

The IS will deliver the results in a format agreed upon (generally in a compressed EndNote library and in XML or RIS format suitable for importing into bibliographic or systematic review software).

Search updates are limited to twice in one year. This includes the update typically done just before going to publication.

While the IS may retain copies of the search strategy, it is ultimately the responsibility of the PI (or designate) as part of the project's data management plan, to save the documentation and search results once the search has been completed.

6. Publication & Co-authorship (According to the Memorandum of Understanding)

In keeping with the guidelines of the International Committee of Medical Journal Editors, (http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html), the IS typically provides the following in return for co-authorship credit:

· search strategy design;
· written methodology section detailing the databases searched and the search strategies used;
· edit of the manuscript and approval on the methodology section;
· accountable to the writing team by providing feedback on the accuracy and integrity of the paper;
· suggestions of author supplied keywords, and response to the reviewers' comments, as appropriate.

Authors who do not wish to engage the IS as a co-author recognize the IS will only design the search strategy and will not otherwise contribute (as per the MOU outlined in Appendix A: Memorandum of Understanding). In these cases, authors are still required to request permissions from the IS if they plan on printing the search strategy in the publication and to acknowledge the contribution of the IS.

References


Appendix

Memorandum of Understanding

If you elect to have a St. Michael's Hospital IS responsible for any of the steps marked with an asterisk (*), the IS is entitled to co-authorship according to International Committee of Medical Journal Editors guidelines, and reserves the right to final approval of any version sent for publication.
<table>
<thead>
<tr>
<th>Task</th>
</tr>
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<tbody>
<tr>
<td>Explore gap(s) in literature/Seeping the literature</td>
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<tr>
<td>Check for existing or ongoing systematic review on same topic</td>
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<tr>
<td>Design or refine search question, research objectives</td>
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<tr>
<td>Design a draft systematic search strategy in one database (specify</td>
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<td>the database here: ---- ----)</td>
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<td>Send copy of the first 100-200 citations from the search to Research</td>
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<td>team for feedback (specify the format here: -----)</td>
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<td>Revise the search strategy and request further feedback</td>
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<td>Request for PRESS-Peer review</td>
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<td>Communicate the result of the PRESS-Peer review with the team and</td>
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<td>revise accordingly</td>
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<tr>
<td>Sign off on the final agreed search strategy</td>
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<td>Run the searches in all agreed databases</td>
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<tr>
<td>Create an Endnote library with all retrieved citations and remove</td>
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<tr>
<td>duplicates</td>
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<tr>
<td>Share the Endnote library in the format agreed upon (specify the</td>
</tr>
<tr>
<td>format here:</td>
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<tr>
<td>Share the documented final search strategies with the team</td>
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<td>Provide a PRISMA flowchart template with initial results</td>
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<tr>
<td>Search reference list of eligible studies</td>
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<td>Search grey literature</td>
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<td>Search specific conferences</td>
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<td>Hand-search selected journals</td>
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<td>Prior to the final write-up, rerun all search strategies to retrieve</td>
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<td>newly published articles</td>
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<td>&quot;Write the &quot;source and search methodology&quot; section</td>
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<tr>
<td>&quot;Final review and approval of the article</td>
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<tr>
<td>Provide Endnote training and support</td>
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</table>
AGREEMENT

I understand that:

1. St. Michael’s Hospital Information Specialist co-authors have equal right to final approval of any version sent for publication.
2. Charges will apply to services for external clients.

As Principal Investigator I agree to:

1. Grant co-authorship if the starred items in the above table are completed by the IS in accordance with International Committee of Medical Journal Editors guidelines.
2. Include the costs associated with expert Library services and resources in my application for funding if this is for a grant application.
3. Provide the Library with the final decision of the granting body.

Information Specialist

Name:____________________________________________
Signature:_________________________________________
Date:____________________________________________

Principal Investigator

Name:____________________________________________
Signature:_________________________________________
Department:_______________________________________
Date:____________________________________________

Appendix B

Search Strategy Feedback for Students

Students at St. Michael’s Hospital are defined in the Student Registration and Administration Policy (Document Number: 0412) as “individuals enrolled in an educational program covered under an academic affiliation agreement between SMH and the respective educational institution” and include Residents (postgraduate medical trainees), Fellows (post-doctoral and medical fellows), and SMH staff members studying at SMH (“Staff as Students”).

Information specialists (IS) provide support to Students working on their own search strategies for systematic or scoping reviews/meta-analyses in the form of:

- Online Resource Guides (e.g. Systematic Reviews Primer, Medline Training, and more.)
- Suggested self-guided online video tutorials
- Group training sessions in the Computer Lab (i.e. Systematic Reviews Primer, Medline, PubMed, EndNote, and others)

Students who undertake a knowledge synthesis (i.e. systematic review, scoping review, etc.) project as part of their academic work (when the project is not affiliated with or specifically supervised by a St. Michael’s Hospital researcher) are not eligible to have an IS conduct the search for their project.
Students whose projects are directly supervised by a St. Michael's Hospital researcher may be eligible to have an IS conduct their search, provided:

- The Student is not being graded on the search strategy
- The Student and their supervising investigator follow the policies and procedures outlined in the Health Sciences Library Systematic Review and Scoping Review Search Services Policy's Description of Services & Associated Procedures

Students must provide the IS with their systematic review protocol to help inform their suggestions.

Students are encouraged to bring specific questions relating to their search strategy to our drop-in Office Hours.