

**Resident Research Handbook
OBGYN Residency Program**

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OVERVIEW OF RESIDENT RESEARCH

During your residency training at The University of Ottawa, you will be expected to make an original contribution to OBGYN literature through the completion of a well-designed scholarly research project. This document outlines the specific research training requirements of the OBGYN Residency Program within the Department of Obstetrics and Gynecology at the University of Ottawa. Relevant tools and resources are provided.

The principles acquired through conducting and collaborating on research studies, and a good fundamental understanding of critical appraisal of the relevant literature apply to all CANMEDs competencies, most specifically to the following specific objectives of training:

MEDICAL EXPERT

2. Establish and maintain clinical knowledge, skills, and behaviours appropriate to Obstetrics and Gynecology

- 2.3. Develop lifelong learning skills of the Scholar Role to implement a personal program to keep up-to-date, and enhance areas of professional competence
- 2.4. Integrate the available best evidence and best practices to enhance the quality of care and patient safety in Obstetrics and Gynecology

SCHOLAR

1. Maintain and enhance professional activities through ongoing learning

- 1.1. Describe the principles of maintenance of competence
- 1.2. Describe the principles and strategies for implementing a personal knowledge management system
 - 1.2.1. Develop a lifelong learning strategy, utilizing information technology for managing cases, literature review, and participation in basic or applied clinical research
 - 1.2.2. Develop proficiency at self-assessment in order to identify learning opportunities based on gaps in skills, knowledge, or attitude
- 1.3. Recognize and reflect on learning issues in practice
- 1.4. Conduct personal practice audits
- 1.5. Pose an appropriate learning question
- 1.6. Access and interpret the relevant evidence
- 1.7. Integrate new learning into practice
- 1.8. Evaluate the impact of any change in practice
- 1.9. Document the learning process

2.0 Critically evaluate medical information and its sources, and apply this appropriately to practice decisions

- 2.1. Describe the principles of critical appraisal, especially epidemiology and biostatistics
- 2.2. Critically appraise retrieved evidence in order to address a clinical question
- 2.3. Integrate critical appraisal conclusions into clinical care
 - 2.3.1. Adapt research findings appropriately to the individual patient situation or relevant patient population

4.0 Contribute to the development, dissemination, and translation of new knowledge and practices

- 4.1. Describe the principles of research and scholarly inquiry
- 4.2. Describe the principles of research ethics
- 4.3. Pose a scholarly question
 - 4.3.1. Identify gaps in knowledge or skill within the field of Obstetrics and Gynecology to generate the clinical questions that will drive the research agenda in the specialty
- 4.4. Conduct a systematic search for evidence
- 4.5. Select and apply appropriate methods to address the question
- 4.6. Disseminate the findings of a study
- 4.7. Participate in a scholarly research, quality assurance, or educational project relevant to Obstetrics and Gynecology, demonstrating primary responsibility for at least two of the following elements of the project:
 - 4.7.1. Development of the hypothesis, which must include a comprehensive literature review
 - 4.7.2. Development of the protocol for the scholarly project
 - 4.7.3. Preparation of a grant application
 - 4.7.4. Development of the research ethics proposal
 - 4.7.5. Interpretation and synthesis of the results

OBGYN Resident Research Training Document

Outline

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Research Requirements for OBGYN Residents

1. Mandatory Training Requirements

- [The Tri-Council Policy Statement \(TCPS2\)](#)

This is a Canadian guideline for the ethical conduct of research involving humans and/or human biological materials. It provides valuable information about best practices for research involving human subjects.

The **free online tutorial TCPS 2: CORE (Course on Research Ethics)** provides researchers with an introduction to the TCPS 2. It consists of eight modules focusing on the guidance in TCPS 2 that is applicable to all research regardless of discipline or methodology.

The tutorial **takes approximately 3 hours to complete**, depending on how many links and case studies one explores. You may complete the modules at your own pace, logging out and logging in again to resume your session.

All residents are required to complete a free online training course at the start of their residency. An electronic certificate will be provided upon completion of the course. A copy of this certificate should be provided to the Residency Research Academic Manager. If you have previously completed the TCPS2 tutorial, please provide a copy of your certificate to the Residency Research Academic Manager.

The tutorial is available at: <http://tcps2core.ca/welcome>

If this is your first time accessing TCPS 2: CORE, **you will need to create a new account.**

- Identify your institutional affiliation as University of Ottawa when prompted.

- [Good Clinical Practice \(GCP\)](#)

The GCP certification ensures a basic comprehension of what is essential for good clinical practice for research being conducted in Canada.

- If you have previously done the CITI program GCP course but have not taken a refresher course this year, you will need to do so.
- The GCP initial and refresher courses can be completed on the CITI Program website, found at <https://www.citiprogram.org/default.asp>
- If you are a new user, you will need to create an account:
 - Click ‘Register’.
 - Select your organization affiliation. Type “Ottawa” in the search field and select from “Ottawa Hospital Research Institute/The Ottawa Hospital”.
 - Specify your username and password and follow the rest of the steps to create your account.
 - Under “My Learner Tools” click “Add a Course” and add “Canada GCP”.

- [SOGC Online Courses – Research Courses](#)

The SOGC's Academic Council Research Course series offers courses in (1) Epidemiology, (2) Publishing and knowledge translation and (3) Statistics. These courses are free for resident SOGC members. You will need to complete these courses in your first year of residency training. Altogether these courses will take no longer than 6 hours to complete.

Register online at: sogc.org/online-courses

2. Attendance at Educational Sessions and Rounds

A number of educational sessions are available to clinical trainees in the Department of Obstetrics and Gynaecology. These sessions provide a valuable opportunity to:

- Establish or maintain knowledge and skills needed in research practice and scientific inquiry.
- Provide knowledge and skills to trainees to effectively synthesize and appraise research literature.
- Review research methods and study designs, and the ethical requirements and considerations of research with human participants.
- Provide tools to disseminate research results to a variety of stakeholders.

[Introduction to Resident Research](#)

An introduction to resident research session is held during orientation of the incoming residents in July.

[Journal Club Academic Half Day](#)

Hosted by the Department of Obstetrics, Gynecology and Newborn Care

Journal Club academic half day occurs four times annually. Four residents will be assigned to each session, and are responsible for selecting an article which is then approved by the faculty mentor/research clinician for that journal club (assigned at the beginning of the year). Selection of the article should be done well in advance in order to facilitate feedback from the clinician researcher. It may be easiest to assign a resident “team leader” to streamline communication with the mentor for feedback and coordination.

The journal club will begin with epidemiology teaching tailored to the selected article. We highly recommend selecting articles of different study designs (ie. cohort, case control, RCT, qualitative, systematic review, etc) for each of the four journal clubs in each academic year so that the teaching sessions are varied.

The teaching session is followed by the ‘debate’ portion where the four residents will present the strengths and the weaknesses of the article. **This portion will begin with a review of clinical background**^{[IC1][UG2]} (this should be limited as is not the focus, only as necessary to understand the article – maximum 10-15 minutes). The introduction is then followed by the ‘debate’ portion whereby two ‘teams’ of two residents on each team present either the merits or limitations of the study. It is helpful to refer to the relevant reporting guidelines to guide critical appraisal of a study: <https://www.equator-network.org/reporting-guidelines/>.

Each resident is expected to attend all journal club half days unless they are away on vacation or on elective. All residents are expected to have read the article (bring a copy with you) and to come prepared to discuss the article as a group. Each resident will likely contribute to journal club 2-3 times during their residency training.

[Biostatistics and Study Design Academic Half Day](#)

Hosted by the Department of Obstetrics, Gynecology and Newborn Care

One to two additional academic half day sessions annually will be dedicated to core principles and understanding of biostatistics and study design.

Grand Rounds

Hosted by the Department of Obstetrics, Gynecology and Newborn Care

These weekly rounds are an opportunity to learn from local and visiting scholars and clinicians on various topics related to obstetrics, gynecology and maternal and newborn health. Rounds may be hosted at either the General or Civic Campus, but options for video conference participation are provided.

Residents are required to attend all Grand Rounds presentations when not away on vacation or elective rotation.

Research Education Rounds

Hosted by the Better Outcomes Registry & Network (BORN) and the Obstetrics, Maternal and Newborn Investigations (OMNI) Research Group

These rounds provide an excellent forum for residents to develop an understanding of the epidemiological and biostatistical principals as they apply to medical research, care in obstetrics and gynecology, and population health. These are often held in the summer.

Other Seminars and Rounds

The Ottawa Hospital, The Ottawa Hospital Research Institute, The Children's Hospital of Eastern Ontario, and the University of Ottawa host a variety of free clinical and research seminars and workshops every month.

Residents are responsible for seeking out additional seminars and rounds relevant to their development as clinicians and researchers.

Graduating Residents Epidemiology Review Session

One session is hosted by the Resident Research Committee for the residents studying for their Royal College Exam to review core principles in epidemiology and biostatistics in preparation for this exam.

On an individual basis, residents also have the option of completing the "Introduction to Research Course" (APOG) or other acceptable research methodology course.

3. Scholarly Research Project

Each resident is required to complete a scholarly research project relevant to the field of Obstetrics and Gynecology that is suitable for peer-reviewed publication and presentation at an academic meeting. The components of this requirement are as follows:

- Pose a scholarly research question
- Conduct a systematic search of the literature for evidence and develop the rationale for the project
- Develop the protocol for the project using the appropriate project design and statistical methods to address the research question
- Develop the research ethics board application for review of the proposal and obtain the necessary approvals
- Apply the protocol to collect the data, and interpret and synthesize the results
- Disseminate the findings of the project appropriately. Dissemination requirements include preparation of a poster or oral presentation at a scientific conference, presentation at resident research day in 4rd or 4th year of residency, and a manuscript suitable for publication.

3.1 Research Project Streams

Residents may choose to fulfill the requirements of their scholarly research project through one of two possible project streams:

Stream 1 Traditional Research Project	Stream 2 Literature-based Project
<p>Project in this stream may include:</p> <ul style="list-style-type: none">• Quantitative research (e.g. database projects, survey studies, prospective studies)• Qualitative research (e.g. includes interviews, focus groups)• Mixed methods research (mixture of Quantitative and Qualitative Research)• Quality improvement research (supervised by a faculty member with an interest in this area) * <p>These projects will:</p> <ul style="list-style-type: none">• Require development of a study protocol <p>Typically require research ethics board approvals.</p>	<p>Literature-based projects may include:</p> <ul style="list-style-type: none">• Systematic review• Scoping review• Narrative review <p>These projects must include:</p> <ul style="list-style-type: none">• a consultation with a medical librarian to develop the search strategy• development of a protocol• completion of the review

** When pursuing a QI project, this must be supervised or co-supervised by one of the QI leads in the Department of OBGYN. Refer to the ['Resident Quality Research Project'](#) document for requirements and guidelines on pursuing a QI resident research project*

3.2 Resident Research Timelines

Expected timelines are provided below:

Stream 1 - Traditional	Stream 2 – Literature-based
<p>Within the first year</p> <ul style="list-style-type: none"> Identify research supervisor MINIMUM: submit a one page summary of the research idea/study (<u>must be complete PRIOR to resident research rotation</u>) IDEALLY: Develop the protocol (5-10 pages) and submit to the Resident Research Committee for approval prior to research rotation 	<p>Within the first year</p> <ul style="list-style-type: none"> Identify research supervisor MINIMUM: submit a one page summary of the research idea/study (<u>must be complete PRIOR to resident research rotation</u>) IDEALLY: Develop the protocol and submit to the Resident Research Committee for approval prior to research rotation IDEALLY: Consult with a medical librarian to finalize the search strategy prior to research block
<p>By the end of the first year or early 2nd year</p> <ul style="list-style-type: none"> Research protocol should be finalized REB application (if required) and all other regulatory requirements should be submitted 	<p>By the end of the first year or early 2nd year</p> <ul style="list-style-type: none"> Research protocol should be finalized The search strategy should be run and the relevant titles and abstracts identified. Title and abstract screening should be started
<p>Second and third year</p> <ul style="list-style-type: none"> Ethics approval in place within a year of the start date – by the second year, the project should be underway Complete data analysis* Work on the manuscript <p>* Data support services may be available, and should be discussed with your research supervisor</p>	<p>Second and third year</p> <ul style="list-style-type: none"> Title and abstract screening should be completed Full-text screening should be completed. Full-text list for inclusion in the review should be finalized Complete data extraction of the included literature Work on the manuscript
<p>Third or fourth year</p> <ul style="list-style-type: none"> Present at Resident Research Day Submit final manuscript for approval from the Resident Research Committee and for publication 	<p>Third or fourth year</p> <ul style="list-style-type: none"> Present at Resident Research Day Submit final manuscript for approval from the Resident Research Committee and for publication

3.3 Project Supervisor

Residents are responsible for identifying a Project Supervisor who's clinical and research interests are aligned with their own. The ideal supervisor is one with sufficient time and expertise to mentor the resident throughout the stages of the project. The supervisor should be selected within the first 6-12 months of residency training. To facilitate networking with departmental researchers, a 'Rapid Research Event' is often held between November – February. If residents are having difficulty identifying a project supervisor, they are encouraged to set up a meeting with a Resident Research Co-Lead for assistance.

A Project Supervisor should be identified from among the OBGYN Faculty clinicians on staff. The role of a Project Supervisor is to provide support and guidance throughout the research project. Specific duties and responsibilities of the Project Supervisor include:

- Providing advice and mentorship with respect to research training and opportunities
- Being available (within reason) for in-person (or virtual) meetings and through electronic correspondences
- Participate in the formulation of the research question
- Ensuring that scope of the research question is clinically relevant, novel and that the work is feasible
- Review, revise and approve all documents (e.g. protocols, abstracts, manuscripts, presentations, reports) generated in the course of the research project

Additional Co-Investigators can be added to the project team other Obstetricians or Gynecologists on staff at The Ottawa Hospital, and investigators affiliated with the Ottawa Hospital Research Institute or the University of Ottawa.

Once a project supervisor and study objective has been identified, residents are to put together a proposal to be submitted and reviewed by the Resident Research Committee for final approval prior to their PGY2 research block (see section below for proposal preparation). This must be received and approved prior to the resident's research block, which occurs in 2nd or 3rd year of training.

Once approved, the resident will be assigned a member of the Resident Research Committee as 'liaison' for direct communication and assistance throughout their research project.

3.4 Communication and Meetings with the Program Administrators

Resident Research Committee members: Any concerns about research progress and abilities to fulfill the research requirements of the programs should be conveyed to the Resident Research Committee member assigned 'liaison', and a meeting scheduled. Similarly, should residents encounter challenges with their project supervisors or mentors they should contact this liaison.

Ad hoc meetings with liaisons including the resident's research supervisor may be arranged as needed, and can be scheduled by reaching out to the liaison directly by email (see email addresses on page 2).

Residents are expected to update their research supervisor regularly (2-4 times annually) with an informal presentation of research progress to date. **Residents are responsible for corresponding and arranging meetings with their project supervisor**. Presentations (Powerpoint slides, or similar) should include the research question (proposed or finalized) accompanied by relevant clinical/scientific background and rationale for the project, proposed methodology, and results generated to date (if available). Key questions and next steps should also be included. This is good practice, as this content can be adapted and utilized for conference and resident research day dissemination.

3.5 Developing a Proposal

The Proposal serves two purposes: First, it is the outline which will guide the Research Project as it is carried out during the second and third year of training. Second, it allows the Resident Research Committee to judge the appropriateness of the project and determine if it will be approved.

The first step is to gain a thorough understanding of the field of the proposed research. This is done carrying out a comprehensive or systematic search of the literature (may be beneficial to have the assistance of a librarian), followed by reading the relevant literature with the guidance of the Preceptor. Only then is the Proposal begun.

The Proposal should be detailed enough so that it is clear what the Resident will be doing throughout the course of the Research Project. It must be shown that the project is feasible and can be completed prior to the end of the fourth year of residency training. On the other hand, it must be shown that the proposed research is of sufficient extent that it is appropriate for a Residency Research project. The reasons for doing the project and the methods to be used for accomplishing it must be described in detail.

The Proposal must be at least two single-spaced pages, and a one-page Abstract, but excluding any figures and the References / Bibliography section.

The Proposal consists of:

1. Abstract

The Abstract should clearly and concisely summarize each of the sections of the Proposal. It should be in the form of a ‘structured’ abstract (with subheadings). It must be complete and understandable on its own. It must contain the title of the research (stated as “Proposal for Research Project: [title]”) and the name of the Resident and Preceptor. Maximum one page in length (300 words). See Appendix D for more information on preparing abstracts.

2. Introduction / Background

The Introduction should give a thorough description of the area of the proposed research including all relevant background information and citations of all relevant published papers. The extent of current knowledge in the field should be clearly laid out. Most importantly, a clear

description of what is still unknown should be provided. This ‘knowledge gap’ should lead naturally to the proposed project/study hypothesis. In other words, by the end of this section it should be obvious that the research you propose to do is necessary.

3. Objectives and Hypothesis

In a few sentences, describe the overall objectives of the proposed research. What is expected to be achieved? This must be specific. It is not enough to say, for example, that the project will “lead to a better understanding of...” Instead, precise goals for this project should be described. A hypothesis or set of hypotheses should be stated which will be tested. Hypotheses must be testable; i.e., they must be clearly stated so that the proposed research or analysis will either support or eliminate a given hypothesis.

4. Methods

The methods which will be used must be described in detail. This includes, for example, descriptions of data-gathering methodologies and experimental protocols. Justification for the extent of the study should be given: How large a population will be required? How many experiments? How will papers for a meta-analysis be chosen? In addition, it is required that the methods used for data analysis be described thoroughly. How will the data be treated once gathered? How will hypotheses be tested? How will significance be decided? All methods must be justified. This section must be detailed enough to show that the methods to be used for all aspects of the proposed Research Project have been well-planned and carefully evaluated.

5. Expected results

This section should describe what is expected to be achieved. Specifically, what information will be obtained and how is it important? This section should correspond to the Objectives of the project, by showing how the information to be generated will fulfill those Objectives.

6. References / Bibliography

All information given in the previous sections must be backed up by citations of appropriate references. This shows that a thorough preliminary literature search has been done, and demonstrates an understanding of the field.

We highly suggest the use of reference management software to insert and manage references in all documents (proposal, manuscript). Examples of commonly used software include **Mendeley**, **Zotero**, **EndNote**. The following is a helpful resource from the University of Ottawa to select and install a citation management tool:

<https://uottawa.libguides.com/citation-management/home>

3.6 Resident Research Rotation

The Research Project is carried out during second and third year of training. A research rotation will take place during the second or third year of training (to secure protected time to work on research projects including data extraction, data analysis, manuscript writing and preparation of presentations). The purpose of this research rotation is not to develop the study proposal.

Research Ethics Approval (REB) should also be obtained prior to start of the block.

Correspond with your research supervisor for support in obtaining REB approval.

1) Before the start of the rotation:

Each resident must meet (or communicate through e-mail) with their preceptor **prior to** the start of the rotation. The proposal should have been completed and REB submission achieved prior to the start of the research block for maximum efficiency during the block. Given that the majority of resident research projects are retrospective, this allows time for data extraction and analysis, followed by results tabulation and manuscript writing during the block. For other types of research, ie. surveys, it allows for time to distribute the surveys, collect and synthesize the data and proceed with analysis.

Each resident must provide a description of **tangible objectives** for the rotation to their preceptor **prior to** the start of the rotation, together with time-line and time commitment

2) During the rotation:

The resident must complete the objectives and tasks developed in the proposal for the rotation, and communicate with their research preceptor on an as needed basis.

A **progress update** must be completed mid-way through the research block to the assigned Resident Research Committee liaison. It is your responsibility to submit this progress update. The Resident Research Committee liaison is also available to meet during your block if you find this helpful.

3) Within 1 week of completion of the rotation:

Each resident must provide the Resident Research Committee liaison a summary of the rotation, i.e. what objectives were completed and time spent on each objective, what was not achieved and why; and what the next steps are to complete the project. They should also inform the Resident Research Committee liaison when they foresee themselves presenting at Research Day (what year of their training).

The research preceptor will complete an evaluation of resident (One45).

If there are any problems or difficulties, the Resident and Preceptor should work together to remedy them. The Resident may also approach the Resident Research Committee liaison or any member of the Resident Research Committee for assistance.

4. Final Manuscript

At the completion of the Research Project, residents are required to submit a final manuscript for evaluation. The final manuscript should be of reasonable scientific and written quality for submission to a reputable journal for peer review. The hypotheses must be addressed and conclusions reached. In short, this manuscript should be essentially identical in form to papers found in the journals you read.

The manuscript is due no later than June at the end of the 4th year of training. It is to be submitted to the Resident Research Committee.

Although publication of the manuscript in a peer-reviewed journal is not required for completion of the research requirements of the Residency Program, publication is strongly encouraged and support will be given by the Supervisor and Resident Research Committee liaison, Senior advisor and Academic Administrator to residents who wish to publish their manuscripts.

- Refer to Appendix A for guidance on how to prepare a manuscript.
- Refer to Appendix B for guidance on determining the order of authorship for a manuscript.

The report/manuscript is produced by the resident, under the guidance of the Project Supervisor. Approval from the Project Supervisor for submission of the manuscript to the Resident Research Committee, or to any journal for publication, must be obtained.

Manuscripts that have been accepted for publication in a reputable peer-reviewed journal will be reviewed and approved by one of the research leads. For manuscripts that have not yet been submitted for publication, two members of the committee will review and provide feedback prior to approval. Manuscript revisions may be required. The manuscript must be ‘accepted’ by the Resident Research Committee in order to fulfill the research requirements of the Residency Training Program.

5. Knowledge Dissemination

Publication of Scientific Findings

As described above, the final results of the project should be appropriate for publication in a peer reviewed scientific or clinical journal. Publication of your research findings is encouraged. Manuscripts should encompass the entirety of the research project inclusive of the methods applied, results, discussion and conclusions.

- Refer to Appendix A for guidance on how to prepare a manuscript.
- Refer to Appendix B for guidance on determining the order of authorship for a manuscript.
- Refer to Appendix C for guidance on selecting a journal for publication

Presentation at Scientific Conferences

The final results of the project should be appropriate for presentation to relevant scientific and/or clinical audiences. The presentation should encompass the entirety of the research project inclusive of the methods applied, results, discussion and conclusions.

- Refer to Appendix D for guidance on how to prepare an abstract.
- Refer to Appendix B for guidance on determining the order of authorship for an abstract.
- Refer to Appendix E for more information on funding support for travel

There are both internal and external opportunities for presentation of scholarly research findings:

5.1 Harry Oxorn Resident Research Day

Hosted by the Department of Obstetrics, Gynaecology and Newborn Care

All residents are expected to submit an abstract to the annual Harry Oxorn Research Day. Abstracts are reviewed by the research day committee.

The learning objectives of this research symposium are:

1. To describe new research findings from trainee projects of relevance to Obstetrics and Gynecology and related subspecialties
2. To appreciate and provide support and/or constructive feedback for clinical and basic research conducted by the trainees in the Department of Obstetrics and Gynecology
3. To further skills in supporting trainees (for staff) or in personally conducting (trainees) meaningful projects throughout residency training

A one-page FINAL abstract of the manuscript is due by April 15th leading up to research day (typically held mid-May). This Abstract will be included in the Program for Postgraduate Research Day. See Appendix D for details on Abstract requirements

Postgraduate Research Day

The results of the Research project are presented at Postgraduate Research Day in the 3rd or 4th year of training. Any substantive comments made at Research Day, especially by the Evaluation Committee, should be considered when the final version of the manuscript is prepared.

General format: Postgraduate Research Day is held off-site, to allow uninterrupted presentation and discussion. This is protected time for residents. Presentations, powerpoint format, are 10 minutes in length with a 5 minute question period. The final results of the Project should be presented. This presentation should be a summary of the entire Research Project, from its beginning to completion. General recommendations are ~1 slide per minute of presentation + introductory slide and references (total ~12 slides).

Evaluation: An *ad hoc* Evaluation Committee is formed for each Postgraduate Research Day. Its members consist of Faculty members of Ob/Gyn, and may also include any visiting Faculty from other institutions invited to participate in Research Day.

5.2 Annual Clinical and Scientific Conference and Other Conferences

Hosted by the Society for Obstetricians and Gynecologists of Canada (SOGC)
The SOGC's Annual Clinical and Scientific Conference is the premier continuing medical education event in Canada for obstetrics and gynaecology, bringing together the largest gathering of health care professionals working in the field of women's health. The meeting is typically held in late spring/early summer. A call for abstracts is made through the SOGC website.

At the end of this conference, participants will be able to:

1. Discuss relevant clinical updates in obstetrics and gynaecology (Communicator)
2. Assess, learn and apply new treatments and techniques (Medical Expert)
3. Apply SOGC clinical practices guidelines to daily practice (Scholar)
4. Participate in an interactive educational environment (Collaborator)
5. Discuss difficult cases relevant to their practice (Communicator)

Other Conferences

There are many local, national and international conferences relevant to the field of obstetrics and gynaecology. Residents are responsible for ensuring that their clinical and/or scientific conferences are appropriate for the presentation of their research findings.

6. Additional Research Selective or Elective Blocks

Applications for scheduling of additional resident research rotation blocks will be reviewed by the resident research committee within one month of receipt of the application. In order to be awarded additional research time, the resident must have shown adequate progress toward their research project during the initial research block and throughout residency training, and have a clear plan for the upcoming dedicated research time. Scheduling additional blocks for research could include pursuit of graduate degrees (such as MSc, MEd, PhD, MBA, MHA) or research-skill building courses (ie. Summer epidemiology program teaching, epidemiology certificate courses for example). In addition, approval will be required from the resident program committee upon recommendation by the research committee. The application for additional research rotations must consist of:

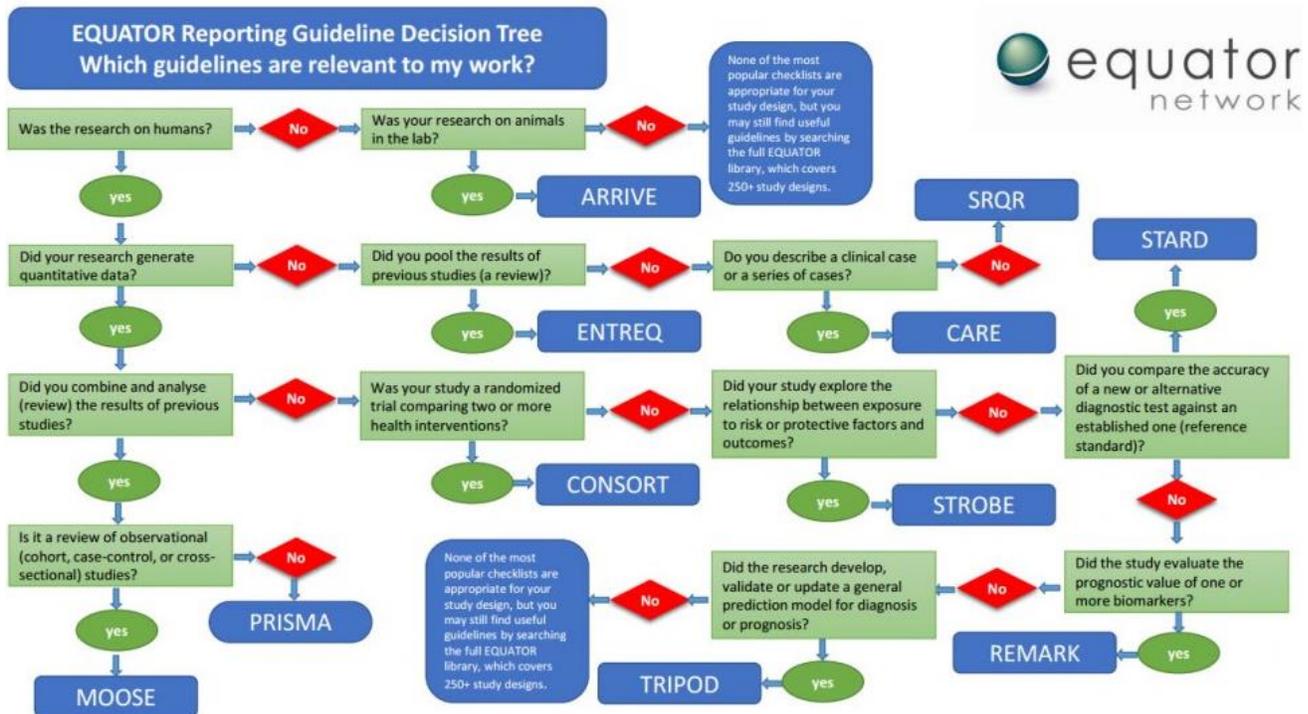
- (1) a statement of intent (maximum 1 page)
- (2) applicant curriculum vitae
- (3) detailed plan of action for the research block (2 pages maximum)
- (4) contact information of proposed research block supervisor

APPENDICES

Appendix A. Publishing your manuscript

Publishing the results of your research will enable the scientific and medical community to stay up-to-date on the evidence in their field, and potentially direct their own research or incorporate your findings into practice.

Authors of research articles frequently forget to report details about their study which are important for readers to know. This can delay publication and stop their work being used, cited or replicated. This is a waste of the human and financial resources invested in the research. The [Equator Network](#) has developed reporting guidelines and checklists for a wide variety of research types and study designs to help authors identify the most important elements to include in their publications. The following flow chart can be used to help you identify the most appropriate checklist and reporting guideline for your study:



In addition, each publisher and journal will stipulate different manuscript sections, citation and reference formats, Table and Figure limitations, and word counts. It is important that you carefully review the author guidelines provided by the journal you are targeting. However, generally, a manuscript will include the following components:

Title Page: Includes the study title, authors and affiliations, corresponding author detail, funding details, relevant disclosures or conflicts of interests (if any)

Abstract and Key words: Includes the study abstract (250-300 words) and a short list of 3-5 key words that other researchers may use to find your paper in a database if it is published.

Manuscript body: comprised of the following components

Background

Methods

Results

Discussion

Conclusion

Acknowledgements: A brief statement of any acknowledgements made

References: References formatted according to the journal requirements

Tables and Figures: Should be accompanied by concise, informative Table titles and Figure captions. Formatted according to the journal requirements

Publications resulting from a project must be provided to all co-authors for an opportunity to review prior to journal submission. Before submission of any given manuscript, the following steps should be taken:

1. Finalize a draft manuscript with the Project Supervisor.
2. Circulate the manuscript to the project co-authors. Facilitate **a minimum of 2 weeks** for co-authors to review the abstract and provide feedback.
3. Finalize the manuscript based on co-author feedback. Confirm revisions with the Project Supervisor. If substantial revisions have been made, recirculate the updated manuscript to all co-authors and provide **a minimum of 1 week** to review and provide feedback.
4. Submit the finalized manuscript to the selected journal (see Appendix C below for guidance on selecting an appropriate journal).
5. Circulate a copy of the submitted manuscript to your co-authors **and** the Resident Research Committee.

If you are invited to revise and resubmit the manuscript:

6. A copy of the correspondence along with any reviewer comments must be circulated to the project co-authors. Co-authors should be given the opportunity to review the revisions and rebuttal letter prior to resubmission.

If your manuscript has been accepted for publication:

7. A copy of the correspondence along with any reviewer comments must be circulated to the project co-authors **and** the Residency Research Committee.

APPENDIX B. DETERMINING AUTHORSHIP ON ABSTRACTS AND MANUSCRIPTS

Institutional recommendations and best practices for determining authorship can be found on the OHRI's Centre for Journalology Website:

<http://www.ohri.ca/journalology/integrity.aspx#authorship>

[International Authorship Guidelines](#) are available from the International Committee of Medical Journal Editors (ICMJE). According to these guidelines, authorship credit is based on the following:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or revising it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Pursuant to the ICMJE criteria, general supervision of the research group that is conducting or supervising a project is not sufficient for authorship. Similarly, participation solely in the acquisition of funding or collection of data does not justify authorship.

Only those individuals who meet all the ICMJE criteria should be named as authors on the multi-centre study publications. All those who deserve authorship credit based on these criteria will be named and those who do not will be acknowledged elsewhere, if appropriate. The order of appearance should be left to the discretion of the authors.

Appendix C. Selecting a Journal for Publication

Identifying an appropriate journal for manuscript publication is jointly decided by all co-authors. The decision on where to submit is multifactorial, and the following should be taken into consideration:

Clinical/methodological relevance

It is important that your research is published in a journal that is appropriate for the work conducted. Selecting the right journal will help you to get your publication into the hands of academic audiences to which the findings are the most relevant. There are many journals that are specific to areas of clinical or scientific focus, methodological fields, and/or geographic regions.

Reputable journal

Verifying that your selected journal is a legitimate, reputable publication is essential. Predatory Journals have emerged as those that publish work without proper peer review and capitalize on submission and publication fees. Predatory journals damage the credibility of academic work and the integrity of scholarly activities. It can be difficult to identify predatory journals as they often have visually appealing websites, and legitimate-sounding titles. The OHRI's Centre for Journalology provides guidance on identifying predatory journals:

<http://www.ohri.ca/journalology/submission.aspx#predatory>

Any questions or concerns can be directed to the Centre for Journalology.

Impact factor

Impact factor is a metric that is used to quantitatively assess the use of material from the journal in its field of work. Often it one of the most important factors used to determine the journal for publication. However, it is not necessarily linked to the number of citations that a publication will receive.

Open access

Publishing your research findings as open access makes scholarly literature available, free of charge to all researchers. Many journals now offer options to publish manuscripts open access for a fee. Many funding agencies now require that scientific findings be published, open access. It is important that you confirm if open access publication is required by the funding agency, prior to pursuing submission. Confirm with your preceptor what funds are available to support open access publication, if any.

Financial support for open access fees may be available from The University of Ottawa Library, and this option should be explored for all publications. The University of Ottawa offers this support via:

1. Discounts arranged with publishers
2. Library shared financial support
3. Direct library support for new models of open access publishing

All faculty members, staff, current graduate students, postdoctoral fellows and adjunct professors affiliated with the University of Ottawa may take advantage of these support mechanisms.

Researchers working for University of Ottawa Research Centres and Institutes and Affiliated Research Institutes are also eligible IF they are the corresponding author. Discounts and shared

financial support options are subject to the availability of funds but can include up to a 50% discount on open access publication charges. For more information on eligibility, and submitting a claim, please review the information available of the uOttawa website:

<https://scholarlycommunication.uottawa.ca/uottawa-initiatives/financial-support>

If there is no funding to support open access publication but open access is desirable, you may contact a member of OHRI's Centre for Journalology team to discuss possible funding options for publishing.

There are online tools available to assist with journal selection. Please refer to these links for additional information:

- <http://www.ohri.ca/journalology/submission.aspx>
- <http://thinkchecksubmit.org/check/>

Appendix D. Preparing abstracts for scientific/clinical conferences

An abstract is a concise, well-developed summary of your project. They are used to highlight the major points of your research and explain why your work is important. Each organization, conference and publisher will stipulate different section headings, formatting and word counts. Different study designs (e.g. systematic review vs retrospective cohort study) may require different formats as well. However, generally, abstracts should be between 250-300 words (excluding the title, authors and affiliations). Common abstract requirements are provided below:

Title: Should be brief and clearly indicate the nature of the presentation

Authors and Affiliations: Complete author list along with their affiliations

Background: 2-3 sentences that provide the rationale for the project. The last sentence should include the study objective.

Methods: Description of the study design (e.g. retrospective or prospective cohort, case control, cross sectional), setting (including study timeframe, city and/or institution), participants (e.g. eligibility criteria, data sources), variables (e.g. primary outcomes of interest) and statistical methods.

Results: Includes number of participants included in the study, brief description of the participants, frequency of the observed outcomes, estimates of associations (e.g. relative risk, odds ratios) and appropriate measures of variability and uncertainty (e.g. confidence intervals)

Conclusion: 2-3 sentences providing a general interpretation of the study results and their scientific or clinical relevance.

Abstracts resulting from a project must be provided to all co-authors for an opportunity to review prior to journal submission. Before submission of the proposed abstract, the following steps should be taken:

1. Develop and finalize a draft abstract with the Project Supervisor.
2. Circulate the abstract to the project co-authors **a minimum of 2 weeks** before the abstract submission deadline. Facilitate a minimum of 5 business days for co-authors to review the abstract and provide feedback.
3. Finalize the abstract based on co-author feedback. Confirm the final version abstract with the Project Supervisor
4. Submit the abstract to the relevant conference abstract submission platform/conference coordinator.
5. Circulate a copy of the submitted abstract to your co-authors **and** the Resident Research Committee.

Because abstract publication and presentation are noteworthy items for academic CVs, you should also notify your co-authors, along with the Resident Research Committee when:

6. An abstract is accepted along with confirmation if the abstract will be published in a journal supplement (provide the corresponding citation)

Finally, if the abstract has been accepted for a poster presentation:

7. Co-authors should have an opportunity to review the content and provide their feedback prior to printing and presentation.

Appendix E. Funding for presentation at Scientific or Clinical Conferences

Presentation of research findings at clinical and scientific conferences is a valuable professional development opportunity. There are internal and external funding opportunities to offset costs related to travel and registration to conferences. Priority will be granted to Trainees who have formal confirmation from the event that they will be presenting an oral or poster presentation.

Internal Funding

Residents are allocated a certain amount of funding for academic purposes through their residency training, which can be used towards conference fees and travel. Connect with the Residency Training Coordinator for further details.

External Funding

External funding to support knowledge translation and exchange activities should be sought where possible. Funding may be sought through a variety of mechanisms, including tri-council travel funding programs (e.g. the CIHR Institute Community Support Program), or Conference- or Society-specific travel grants.

If insufficient funds are available (in part or in full) to support a Trainee's conference costs, the Trainee may be required to cover the costs or cost difference.

Appendix F Checklist of resident research milestones

Due date PRIOR TO	Milestone	Date completed
Minimum 3 months before scheduled research block	Identify research supervisor	
Minimum 3 months before scheduled research block	Develop research project summary (minimum full page, ideally full proposal)	
Minimum 2 weeks prior to scheduled research block	Obtain REB approval for the study if applicable	
January of PGY2 year	Update research supervisor – formal meeting	
1 st day of research block	Meet with research supervisor to review rotation objectives for research block	
2 weeks in to research block	Obtain mid-way feedback from research supervisor	
At completion of research block	Obtain final feedback from research supervisor (research mentor will be completing research block evaluation)	
June of PGY2 year	Update research supervisor – formal meeting	
January PGY3 year	Update research supervisor – formal meeting	
June PGY3 year	Update research supervisor – formal meeting	
January PGY4 year	Update research supervisor – formal meeting	
April of PGY4 year	Submit abstract for resident research presentation at Resident research day	
May of PGY4 year	Presentation at resident research day	
End of 4 th year	Draft manuscript to research supervisor and research committee	