# **RESIDENT RESEARCH**

GOALS & OBJECTIVES



DEPARTMENT OF PEDIATRICS

# Contents

The Basics
Background
Scholarly Project Options
Goals & Objectives
Primary Goals7
Yearly Objectives
PGY1 (Research-1)7
PGY2 (Research-2)7
PGY3 (Research-3)7
Successful Completion7
PGY1 Requirements and Expectations9
Specific Expectations9
Resources10
PGY2 Requirements and Expectations12
Specific Expectations12
Resources12
PGY3 Requirements and Expectations
Specific Expectations14
Resources14

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# The Basics

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The Overall Picture

# Background

Scholarly activity is an integral part of modern medicine, and a requirement for successful completion of a Royal College accredited pediatrics residency training program. In addition to gaining clinical and medical expertise, residents must develop their skills in identifying their own gaps in knowledge, generate a question from that gap, query the medical literature, understand how evidence is generated, and interpret and translate that evidence into clinical practice.

This pediatrics experience occurs over the course of three 2-week blocks scheduled in PGY1, PGY2, and PGY3. Although these rotation blocks provide dedicated research time, it should be expected that a research project is an ongoing part of the residency program and will be worked on, as required, throughout.

# Scholarly Project Options

The following is a list of projects deemed as acceptable to meet the requirements of research during your pediatrics residency program.

- Quality Improvement
- Medical Education Evaluation/Project
- Knowledge translation activities
- Advocacy projects
- Surveillance studies
- Case Series Study
- Prospective Qualitative Study
- Retrospective, hypothesis-driven clinical or epidemiological observational research using an existing database
- Systematic or scoping review
- Prospective, hypothesis-driven clinical or epidemiological observational or experimental study

To be considered acceptable ALL of the above projects must include an evaluative component with data output (measure) that is either qualitative or quantitative in nature and can be used to generate an evaluative manuscript.

# Goals & Objectives

A residency scholarship project will, for most residents, span three years and will meet the following overarching goals. For more specific descriptions of activities/tasks to be completed each year, see the respective expectations sections PGY.

## Primary Goals

- The primary goal of the resident during PGY1 with respect to research is to DEFINE a research question.
- The primary goal of the resident during PGY2 with respect to research is to CONDUCT a research project.
- The primary goal of the resident during PGY3 with respect to research is to REPORT THE RESULTS of a research project.

## Yearly Objectives

### PGY1 (Research-1)

During the PGY1 year residents will use their two-week research block to consider, select, and outline a research project. Their time will also be spent completing a variety of online course modules that will strengthen their research and ethical skills.

### PGY2 (Research-2)

During the PGY2 year residents will use their two-week research block to conduct their study in whatever format best suits their selected project. Time will also be spent furthering critical appraisal skills.

### PGY3 (Research-3)

During PGY3 year residents will use their two-week research block turning their research project into a completed written manuscript. This time will include submitting to relevant co-authors for review, editing and journal submission.

## Successful Completion

Any resident who successfully completes their research rotation (eg: meets all expectations outlined for that PGY) will gain an additional \$250 in conference funding, above the \$750 yearly base amount.

Our program has flexible scheduling options that allow for residents who require more time to complete a project to use elective time if necessary. Requests to use elective time for research should be made through the residents Academic Advisor in discussion with the Resident Research Director. Requests must be approved by the Resident Research Director and Program Director.

# Research-1

## PGY1 Requirements and Expectations

Before the beginning of your research block, you should identify a potential supervisor and think of a rough idea for a project. The department can provide you with a list of faculty members and their research interests. If you have ideas of your own, we encourage you to identify potential supervisors to discuss potential research.

During this research block you will meet with the Resident Research Director twice:

- 1. At the beginning of the block to discuss plans/goals for work completion over the course of the two weeks.
- 2. At the end of the block to assess completion of expectations.

Contact Dr. Jagdeep Walia (<u>waliaj@queensu.ca</u>) to arrange these meetings as soon as possible when you notice that you have an upcoming research block in the roster.

## Specific Expectations

To be considered a complete block, the resident **must**:

- 1. Identify a research project/question, area of investigation and a research supervisor to work with.
- 2. Write a draft proposal including a brief literature review, budget outline and a draft timeline with milestones for completion of the proposed project.
- 3. Present their proposal at the Annual Department of Pediatrics Research Day (10-minute total time:8-minute talk with 2 minutes for questions).
- Complete the following online / self-study modules, print (or email a pdf) the certificates of completion and forward those to Dr. Walia (<u>waliaj@queensu.ca</u>) and Liz King (<u>kinge@queensu.ca</u>).
  - a. The TCPS 2 Tutorial Course on Research Ethics (CORE): (http://www.pre.ethics.gc.ca/eng/education/tutorial-didacticiel/)
    - You must use your <u>name@queensu.ca</u> email address to register and identify Queen's University and Kingston Health Sciences Centre as the Organization.
  - b. Institute for Healthcare Improvement

(www.ihi.org/education/IHIOpenSchool/Courses)

- QI 101: Introduction to Health Care Improvement
- PS 101: Introduction to Patient Safety
- PFC 101: Introduction to Person- and Family-Centred Care
- L 101: Introduction to Health Care Leadership
- PS 102: From Error to Harm
- QI 102: How to Improve with the Model for Improvement
- QI 103: Testing and Measuring Changes with PDSA Cycles
- QI 104: Interpreting Data: Run Charts, Control Charts and Other Measurement Tools

- QI 105: Leading Quality Improvement
- PS 103: Human Factors and Safety
- PS 104: Teamwork and Communication in a Culture of Safety
- PS 105: Responding to Adverse Events

#### Resources

At the start of residency, you will be provided with a copy of *The Research Guide: A primer for residents, other health care trainees, and practitioners*. Before beginning your first rotation you should make your way through the *Starting, Planning, Designing and Proposing* sections.

Other resources available to you are:

- Queen's Library Resources (<u>http://library.queensu.ca/search/subject/medicine</u>)
  - Contact a Queen's Library Medicine Resources Specialist: <u>http://library.queensu.ca/node/1342?directed-email=7</u>
- Institute for Healthcare Improvement (<u>www.ihi.org/education/IHIOpenSchool/Courses</u>)
- Centre for Evidence-Based Medicine (<u>http://www.cebm.net/</u>)
  - o CEBM Critical Appraisal Tools (<u>http://www.cebm.net/critical-appraisal/</u>)

Research-2

## PGY2 Requirements and Expectations

Before the beginning of this research block you should have completed all the requirements of the PGY1 research block and submitted an Ethics proposal.

During this research block you will meet with the Resident Research Director twice:

- 1. At the beginning of the block to discuss plans/goals for work completion over the course of the two weeks.
- 2. At the end of the block to assess completion of expectations.

Contact Dr. Jagdeep Walia to arrange these meetings as soon as possible when you notice that you have an upcoming research block in the roster.

## Specific Expectations

To be considered a complete block, the resident **<u>must</u>**:

- 1. Submit an Ethics proposal
- 2. Present a research follow up at the Annual Department of Pediatrics Research Day (10minute total time:8-minute talk with 2 minutes for questions).
- 3. Complete a short written Critical Appraisal and have it reviewed
  - a. See attached Rubric for specific expectations
- 4. Continue working on the research component of the project
- 5. Online Modules/Training

### Resources

At the start of residency, you will be provided with a copy of *The Research Guide: A primer for residents, other health care trainees, and practitioners*. Before beginning your first rotation should make your way through the *Proposing and Conducting* sections.

Other resources available to you are:

- Queen's Library Resources (<u>http://library.queensu.ca/search/subject/medicine</u>)
  - Contact a Queen's Library Medicine Resources Specialist: http://library.gueensu.ca/node/1342?directed-email=7
- Institute for Healthcare Improvement (<u>www.ihi.org/education/IHIOpenSchool/Courses</u>)
- Centre for Evidence-Based Medicine (<u>http://www.cebm.net/</u>)
  - CEBM Critical Appraisal Tools (<u>http://www.cebm.net/critical-appraisal/</u>)

Research-3

## PGY3 Requirements and Expectations

Before the beginning of this research block you should have completed all the requirements of the PGY1/2 research block and completed the research phase of your project.

During this research block you will meet with the Resident Research Director twice:

- 1. At the beginning of the block to discuss plans/goals for work completion over the course of the two weeks.
- 2. At the end of the block to assess completion of expectations.

Contact Dr. Jagdeep Walia to arrange these meetings as soon as possible when you notice that you have an upcoming research block in the roster.

## Specific Expectations

To be considered a complete block, the resident **must**:

- 1. Completed a written manuscript based upon your research project: this manuscript must be:
  - a. Ready for review (or already in review by other members of the research team)
  - b. Ready for submission to an appropriate journal

### Resources

At the start of residency, you will be provided with a copy of *The Research Guide: A primer for residents, other health care trainees, and practitioners*. Before beginning this rotation, you should make your way through the *Reporting and Reflecting* sections.

Other resources available to you are:

- Queen's Library Resources (<u>http://library.queensu.ca/search/subject/medicine</u>)
  - Contact a Queen's Library Medicine Resources Specialist: <u>http://library.queensu.ca/node/1342?directed-email=7</u>
  - Institute for Healthcare Improvement (www.ihi.org/education/IHIOpenSchool/Courses)
- Centre for Evidence-Based Medicine (<u>http://www.cebm.net/</u>)
  - CEBM Critical Appraisal Tools (<u>http://www.cebm.net/critical-appraisal/</u>)