

HIV ADVANCED (YEAR 2) PHARMACY RESIDENCY

RESIDENCY PROJECT/RESEARCH ROTATION GOALS AND OBJECTIVES

PRECEPTOR:

A primary preceptor will be identified who will take full responsibility for the resident's work related to the project. The primary preceptor will be a pharmacist in one of the following categories:

- HIV Year 2 Residency Co-director(s)
- HIV Pharmacotherapy Specialist
- HIV Clinician/Scientist or in a pertinent field related to the project

(Refer to Responsibilities of the Residency Project Preceptor document)

Depending on the scope of the project, the project team may consist of any of the above as well as non-pharmacy or non-UHN or MUHC practitioners or research assistants (i.e., statistician, epidemiologist, research methodologist), as appropriate.

DURATION:

8 weeks scheduled throughout the residency year

OUTCOME(S):

The resident will develop the clinical and research knowledge, skills, and professional values to:

- Demonstrate understanding of the principles of the Tri-Council Policy Statement (TCPS 2) and the Denver and Meaningful Involvement of People Living with HIV (MIPA) principles in order to proficiently develop a research protocol consistent with best practices for ethical research conduct in people living with HIV.
- Initiate and complete a research project by the end of the residency year, including:
 - Prepare a research protocol,
 - Submit the research project to the research ethics board, if applicable,
 - Complete a research manuscript and submit it for publication to a scientific journal within 3 months of the end of the residency year.
- Demonstrate project management skills.

GOALS and OBJECTIVES:

GOAL 1: By the end of the residency year, the resident shall demonstrate the use of effective project management skills to undertake, conduct and successfully complete a research project.

OBJ 1.1: Identify a topic of interest

- *Define the research problem to be studied given the allocated project time (original idea or from a list of proposed projects)*

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- *Conduct a systematic literature search of the research problem and critically review existing studies*

OBJ 1.2: Create in collaboration with the research team (or project preceptor) an appropriate study design and outcome measures to evaluate the research problem.

- *Explain concepts of basic research design*
- *Explain the elements of a project proposal*
- *Propose methods to solve the research problem*
- *Identify those individuals who will be affected by the conduct of the project. Involvement may include stakeholder consultations, utilization of a community advisory board, etc.*
- *Determine a timeline with appropriate milestones that will result in project completion within the allocated project time*
- *Prepare a written research protocol for submission to the residency advisory committee (RAC) and necessary approval agencies. Study protocol will include background, rationale, hypothesis, primary and secondary objectives, methodology (including design, inclusion/exclusion criteria, outcomes/endpoints, variables, sample size calculation, statistical plan), ethical considerations, budget, timeline, pertinence and informed consent form (if applicable).*
- *Complete relevant UHN and/or MUHC-specific research training modules*

OBJ 1.3: Obtain necessary approvals (eg. Research Ethics Board) and identify need for funding (if applicable)

- *Identify key stakeholders who must approve the project*
- *Prepare and submit an application to the local REB(s)*
- *Respond to any issues/concerns from approval agencies*

OBJ 1.4: Implement the project as specified in its design.

- *Subject recruitment and obtaining informed consent, and/or training and supervising people doing this, if applicable*
- *Data collection and/or training and supervising people doing this*
- *Effectively manage questions or challenges that arise during the implementation, including communication with the research project preceptor, research team members, and Residency Coordinators as appropriate, and resolution of issues*

OBJ 1.5: Complete data collection, analysis and interpretation

- *Develop data collection forms*
- *Create and maintain a current database of results*
- *Utilize appropriate statistical tests/tools to scientifically analyze and interpret research results*
- *Suggest appropriate solutions and/or develop recommendations to address the research problem*

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- *Identify further research work (as appropriate)*

OBJ 1.6: Effectively present and defend the results of the project.

- *Prepare a summary of project results suitable for poster presentation at an external professional meeting or conference, if applicable*
- *Prepare a summary of project results suitable for oral presentation to RAC, UHN/MUHC staff pharmacists and other internal and external health professional audience*

OBJ 1.7: Prepare and submit a final written report (manuscript) of the project in a format suitable for publication to a peer-reviewed journal within 3 months of the last day of the residency program.

- *Identify suitable peer-reviewed journals appropriate for project manuscript submission (list of ~5 journals)*
- *Prepare the project manuscript in a format suitable for publication according to author guidelines of the selected journal*
- *Prepare a cover letter to accompany the manuscript submission*
- *Submit the project manuscript to:*
 - *Selected peer-reviewed journal; forward copy of submission acceptance email from the journal to the residency coordinators**
 - *Residency coordinators in pdf format for project binding*
 - *T-SPACE at University of Toronto*
- **NB: residents are required to have submitted their manuscript to an appropriate peer-reviewed journal within this 3 month period; the manuscript does not need to have been accepted for publication to meet the requirements for successful completion of the residency program.*
- *The resident is expected to serve as the primary author on the project manuscript. It is hoped that the resident will take the lead on all subsequent correspondence with the journal, making revisions as requested by reviewers, and re-submitting the manuscript for publication consideration. If the resident is no longer able to fulfill this responsibility in a timely manner, then other co-authors may assume this role.*

OBJ 1.8: Demonstrate effective communication and interpersonal skills

- *Interact effectively with team members, study participants, and other stakeholders*
- *Manage conflict appropriately*
- *Clearly express ideas and project plan to team members and other stakeholders*

OBJ 1.9: Demonstrate skill in self reflection

- *Discuss progress with preceptor at key timepoints during project*
- *Reflect on specific events related to project as appropriate*
- *Complete midpoint and final formal self assessments*

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ROTATION DESCRIPTION:

The residency project should respond to a knowledge gap in the field of HIV and must be accomplished in the allotted project time.

Process for residency project selection:

- The resident will avail themselves of the opportunity to talk to the HIV clinic directors, residency program coordinators, and other clinic staff regarding potential project ideas.
- Discussion on potential project ideas should begin at least one month prior to the start of the residency program. A project outline, utilizing the Project Outline Template (Appendix A), should be prepared for each potential research idea.
- Final project selection should be made during the first month of the residency program.

Process for residency project approval:

- The resident will identify project selected to the residency coordinators.
- The residency coordinators will approve project selection.
- The resident will expand upon the one page project outline and complete a project proposal.
- The preparation of the project proposal will be appropriately guided and assisted by the program coordinators and the project preceptor.
- The proposal will be circulated in writing to the Residency Advisory Committee (RAC) and presented verbally at the first meeting of the residency year.
- The project proposal will be concise, of reasonable length and of practical application.
- The RAC will provide final approval for the project to move forward.

Completion of project manuscript:

A written report of the project must be submitted by the resident to the Residency Advisory Committee. This report shall be compiled and organized for publication and will typically contain the following sections:

- a title page
- acknowledgments
- a one- page abstract (up to 250 words)
- introduction
- methodology
- results
- discussion including recommendations and relationship to literature reports
- suggestions for further research
- references
- appendices, where needed

The sections of the manuscript may be adapted to comply with the author guidelines for publication of the selected journal.

Time line for project manuscript preparation/submission:

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- 1 week prior to final RAC meeting: submit preliminary report including results of the project to the RAC for review
- Within 1st month following completion of the residency: the resident will submit a draft of the manuscript to the residency coordinators and project preceptor for review and comments.
- Within 2nd month following completion of the residency: the resident will submit a revised draft of the manuscript to the residency coordinators, other co-authors and project preceptor for review and comments.
- Within 3 months of completion of the residency year, the resident will submit the project manuscript to:
 - Residency coordinators, project preceptor and RAC in pdf format. Hard copies will be bound and distributed to the Pharmacy Departments at UHN and MUHC for filing, and to the resident for their personal use
 - Selected peer-reviewed journal; forward copy of submission acceptance email from the journal to the residency coordinators
 - T-SPACE at University of Toronto (see “T-Space Guidelines UT Pharmacy Residency Projects” and “Appendix1_TSpace_Residency_Project_Release_Form” documents)



T-Space Guidelines Appendix1_TSpace_
UT Pharmacy ResideResidency_Project_R

RESIDENT ASSESSMENT:

Residents will be assessed in the following manner:

- Completion of residency project proposal (Appendix A) prior to first HIV RAC meeting
- Completion of the research protocol, including background literature search and understanding of research issue (refer to Residency Project Assessment Form, Sections 1, 2.1-2.4)
- Demonstration of research and project management knowledge and skills as per Residency program Research Rotation Assessment Form (completed at midpoint and end of residency year by the Project Preceptor(s) and by the resident as self-assessment)
- Participation in project team meetings (refer to: Residency Project Assessment Form, section 4).
- Project oral and poster presentations (refer to: Poster Presentation/Oral Research Presentation Assessment Form)
- Quality of manuscript (refer to Scholarly Writing Assessment Form)



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Appendix A: Project Topic Outline/Brainstorming Framework

Date submitted:	
Project topic/title:	
Primary project preceptor:	
Project team members:	
Brief project background/rationale for project:	
Research question:	
Primary objective:	
Target Patient Population/Medical Units (If applicable)	
Design Considerations: (ie. retrospective review, kinetic study, etc.)	
Methods Considerations:	
Endpoints/Outcome Measures:	
Why is project unique?	
Budget/Cost implications:	
Workload implications for project team/resident:	
Feasibility to complete during residency year (8 weeks of project time):	
REB/ Ethics considerations:	
Anticipated Questions/Challenges	
Anticipated Benefits:	



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