

## HIV ADVANCED (YEAR 2) PHARMACY RESIDENCY

### HIV Geriatrics Rotation ROTATION DESCRIPTION

#### SITE/PRECEPTOR:

**Site:**

Chronic Viral Illness Service  
McGill University Health Centre (MUHC)  
1001 boul. Décarie, block D, 2<sup>nd</sup> floor  
Montréal, Québec H4A 3J1  
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**Preceptors:**

Nancy Sheehan, PharmD, MSc  
Benoît Lemire, BPharm, MSc  
Alison Wong, PharmD, MSc  
Katherine Mousseau, BPharm, MSc  
Laurence Messier, PharmD, MSc  
Sébastien Landry, PharmD, PhD  
Katherine Desforges, PharmD, MSc or colleague (geriatric pharmacy expert)

The primary preceptor for the rotation is determined before the start of the rotation based on the pharmacist schedule.

**Correspondence:**

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#### DURATION:

5 weeks

#### OUTCOMES:

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

- A. provide evidence-based patient care as a member of the interprofessional team
- B. provide medication- and practice-related education
- C. exhibit ability to manage one's own practice of pharmacy

for patients at the Chronic Viral Illness Service of the MUHC.

#### GOALS and OBJECTIVES:

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Please refer to the **University Health Network/McGill University Health Centre HIV Advanced (Year 2) Pharmacy Residency Program: Clinical Rotation Goals and Objectives** document for the overall goals and objectives for this clinical rotation.

In addition, goals and objectives specific to this rotation are:

**Goals:** The HIV Advanced (Year 2) Pharmacy resident will be asked to apply the pharmaceutical care model to people living with HIV that are  $\geq 65$  years old.

- 1) To increase the resident's knowledge concerning the effects of aging on virologic and immunologic control and on the pharmacokinetics of antiretrovirals;
- 2) To apply geriatric pharmacology principles to patient care of people living with HIV;
- 3) To manage drug-drug interactions between antiretrovirals and medications commonly prescribed for geriatric conditions.

**Objectives:** By the end of the rotation, the resident will be able to:

1. Discuss the effect of aging on:
  - a. virologic response to antiretroviral therapy;
  - b. the immune system in the general population (immunosenescence) and immunologic response to antiretroviral therapy;
  - c. absorption, distribution, metabolism and elimination in general, and specifically on the pharmacokinetics of antiretrovirals.
2. Describe the various tools and criteria used to identify geriatric conditions and inappropriate medication use (ie, various Frailty Indexes, Beer's criteria, STOPP/START criteria, etc), including their strengths and limitations.
3. Complete a best possible medication history with each patient, identify inappropriate medications and where pertinent make recommendations for deprescribing.
4. Anticipate, detect, manage and monitor adverse drug reactions, specifically those that have become or could cause prescription cascades.
5. Anticipate, detect, manage and monitor drug-drug interactions, in particular between antiretrovirals and medications commonly prescribed for geriatric health problems (ie, benign prostatic hyperplasia, Parkinson's disease, dementia, hypertension, urinary incontinence, erectile dysfunction, insomnia, osteoporosis, etc).

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6. In a given patient, describe physical and cognitive limitations associated with aging that can influence medication adherence.
7. In collaboration with other team members, determine the level of disability of aging patients and propose and implement solutions to improve adherence and ensure safe medication use.
8. Prepare and give an effective case presentation of an HIV geriatric patient to the CVIS team and/or pharmacy department.

### DESCRIPTION:

The Chronic Viral Illness Service of the McGill University Health Centre serves over 2000 people living with HIV and/or HCV. It is one of the largest HIV ambulatory care clinics in the province of Québec.

An interdisciplinary team approach is provided to patients. The medical staff includes infectious disease specialists, general practitioners with an expertise in HIV patient care, a psychiatrist, a hepatologist and a geriatrician. The team also includes 6 pharmacists, clinical and research nurses, a social worker, and a psychologist. Pharmacists offer pharmaceutical care to clinic patients on a full-time basis. Furthermore, since May 2006, the hospital is responsible for the Québec Antiretroviral Therapeutic Drug Monitoring Program. Pharmacists do TDM interpretations for patients from across the country.

The Québec division of the Canadian HIV / AIDS Trial Network is located at the McGill University Health Centre. Clinical studies and fundamental research on HIV, viral hepatitis and comorbidities are ongoing. Specific research interests include new HIV and HCV therapies, immunotherapeutics, HIV/HCV co-infection, neurocognitive impairment associated with HIV, pharmacokinetics of antiretrovirals in plasma and reservoirs.

With increased survival of people living with HIV, the CVIS cohort is aging. Ten percent (10%) of the patient population (i.e., > 200 patients) are 65 years or older. Approximately 60% of the cohort are infected with HIV since more than 20 years. The mean number of medications is 8.5 per patient (general CVIS population, data not presently available for geriatric HIV population).

Teaching will be facilitated by a variety of means including self-directed learning, resident-preceptor therapeutic discussions, interdisciplinary academic rounds, and pharmacy department rounds (clinical sharing sessions, clinical foundations, journal clubs, resident presentations).

Residents can expect to participate in peer-to-peer teaching and learning.

### RESIDENT RESPONSIBILITIES:

Reviewed: June 2023

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The resident will:

1. Provide the previous rotation assessment, the longitudinal knowledge tracking form, and their rotation specific personal learning objectives to the primary preceptor at the start of the rotation;
2. Shadowing with a geriatric pharmacy expert for 3 days to review key geriatric pharmacology principles;
3. Provide evidence-based patient care to patients selected by the resident and preceptor according to the rotation objectives and the resident's experience and interest. The number of patients selected will vary from resident to resident, but an estimate of the expectation is 3 to 5 new patients/week.
4. Pharmacy consultations of geriatric patients ( $\geq 65$  years old) with polypharmacy (patients with  $\geq 10$  medications will be prioritized)
  - a. Best Possible Medication History;
  - b. Evaluate efficacy and safety of each medication, including antiretrovirals, and determine if medications should be discontinued or adjusted;
  - c. Make needed recommendations to the treating physician;
  - d. Manage adverse drug reactions;
  - e. Manage drug-drug interactions;
  - f. Counsel patients on recommended changes;
  - g. Document the pharmaceutical care plan.
5. Meet daily with the preceptor. Specific meetings include:
  - pharmaceutical care patient care work-ups
  - pre-determined therapeutic discussions;
6. Discuss all recommendations for drug therapy with the preceptor prior to discussing with the most responsible physician or other health care professional, unless otherwise arranged with the preceptor in advance.
7. Complete assigned reading and prepare for therapeutic discussion topics with the preceptor. These may include both required topics chosen by preceptor and elective topics selected by the resident.
8. Present one geriatric case presentation to the CVIS pharmacists, the pharmacy department and/or the CVIS team;
9. If the schedule permits, precept a 4<sup>th</sup> year PharmD student (Faculté de pharmacie, Université de Montréal) or a MSc in Advanced Pharmacotherapy resident (Faculté de pharmacie, Université de Montréal) during one of the MUHC clinical rotations (HIV ambulatory or HIV geriatrics). This includes creating a rotation schedule/teaching plan for the learner, reviewing the rotation-specific and personal learning objectives with the learner at the start of the rotation, demonstrating appropriate selection and performance of practice-based teaching roles (i.e., direct instruction, modelling, coaching and facilitation), participating in the assessment of the learner and providing regular feedback;

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10. Participate in weekly CVIS pharmacy team meetings;
11. Participate in weekly CVIS academic rounds;
10. Complete the following assessments:
  - written midpoint and final self-assessment (forward to preceptor prior to meeting to discuss)
  - verbal and written self-assessment after each presentation
  - written assessment of practice-based teaching, if applicable
  - written assessment of the rotation and preceptor at the end of the rotation
  - longitudinal knowledge tracking

### RESIDENT ASSESSMENT:

Residents will be assessed in the following manner:

- verbal formative feedback provided on a daily basis.
- mid-point meeting and review of resident written self-assessment (Clinical Rotation Assessment form). The preceptor may prepare a written midpoint assessment if the resident is experiencing significant difficulties meeting the expected level of performance.
- written final rotation assessment completed by preceptor & resident self-assessment (Clinical Rotation Assessment form).
- Presentation, practice-based teaching, and other relevant assessments, as applicable, by preceptor and resident (self-assessment).

Assessments will be based on patient care work-ups, therapeutic interventions, review of documentation, participation in inter-professional rounds, resident-preceptor therapeutic discussions, case presentations, teaching activities and professional conduct.

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