HIV GERIATRICS ROTATION

McGill University Health Centre

Chronic Viral Illness Service

Site:

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Chronic Viral Illness Service
1001 boul. Décarie, bloc D, 2nd floor
Montréal, Québec H4A 3J1

The Chronic Viral Illness Service of the McGill University Health Centre serves over 1900 patients HIV mono-infected, HCV mono-infected or HIV/HCV co-infected. 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 hepatologist, an immunologist, a psychiatrist and a geriatrician. The team also includes 4 pharmacists, clinical and research nurses, a nutritionist, two social workers, 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 HCV therapies, viral resistance to antiretrovirals, immunotherapeutics, HIV/HCV co-infection, neuro-cognitive impairment associated with HIV, pharmacokinetics of antiretrovirals.

With increased survival of people living with HIV, the CVIS cohort is aging. The median age for men is 54 (range 19.1 to 86.6) and for women 48 (range 18.6 to 82.8) years old. The clinic has 183 patients above 65 years old, with 59% of this cohort being 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).

Preceptors:

Primary preceptor :

Nancy Sheehan, B.Pharm, M.Sc

Secondary preceptors:

Benoit Lemire, B.Pharm, MSc, AAHIVP
Katherine Mousseau, B.Pharm, MSc, AAHIVP
Alison Wong, B.Pharm, MSc
Louise Mallet, B.Pharm, PharmD

Correspondence:

Nancy Sheehan
Chronic Viral Illness Service
1001 boul. Décarie, bloc D, 2nd floor
Montréal, Québec H4A 3J1
Tel: (514) 934-1934, ext 32191
Fax: (514) 843-2092
e-mail: nancy.sheehan@umontreal.ca

Duration of rotation: 4 weeks

Goals: The HIV specialty resident will be asked to apply the pharmaceutical care model to patients with HIV that are ≥ 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 HIV patient care;

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:

- Discuss the effect of aging on:
    - virologic response to antiretroviral therapy;
    - the immune system in the general population (immunosenescence) and immunologic response to antiretroviral therapy;
    - absorption, distribution, metabolism and elimination in general, and specifically on the pharmacokinetics of antiretrovirals.

- 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.

- Identify health problems and develop and implement an individualized pharmaceutical care plan to manage these health problems:
    - Collect pertinent disease, drug and patient information from the patient's chart and by interacting with the patient;
    - Identify actual and potential health problems;
    - Prioritize the health problems;
    - For each health problem, provide appropriate recommendations for the management of the problem and communicate the plan to the medical team and to the patient;
    - Develop and implement a monitoring plan.

- Complete a best possible medication history with each patient, identify inappropriate medications and where pertinent make recommendations for deprescribing.

- Anticipate, detect, manage and monitor adverse drug reactions, specifically those that have become or could cause prescription cascades.

- 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).

- In a given patient, describe physical and mental limitations associated with aging that can influence medication adherence.

- 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.

- Act as a responsible, mature, professional and motivated member of the interdisciplinary team.

- Do a case presentation of an HIV geriatric patient to the CVIS team and/or pharmacy department.

Activities

- Shadowing with a geriatric pharmacy expert for 3 to 5 days to review key geriatric pharmacology principles;
- Pharmacy consultations of geriatric patients (≥ 65 years old) with polypharmacy (patients with ≥ 10 medications will be prioritized)
    - Best Possible Medication History;
    - Evaluate efficacy and safety of each medication and determine if medications should be discontinued or adjusted;
    - Make needed recommendations to the treating physician;
    - Manage adverse drug reactions;
    - Manage drug-drug interactions;
    - Counsel patients on recommended changes;
    - Document the pharmaceutical care plan.
- Case presentation to CVIS team and/or pharmacy department.
- Topic discussions
- Select tools that CVIS pharmacists can use to improve medication use in the elderly.

Evaluation

The resident will complete a self-assessment at midpoint (2 weeks) and at the end of the rotation (4 weeks). The primary preceptor, in collaboration with the secondary preceptors if needed, will complete a mid-point assessment at 2 weeks and a final evaluation at 4 weeks. Verbal feedback will be given throughout the rotation.

The clinical rotation assessment form will be used for these assessments.

At the end of the rotation, the resident will also complete an evaluation of the rotation and of the preceptor.