

Island Health Pharmacy Practice Residency

NEUROLOGY ROTATION



Preceptors:

Laura Yoo, B.Sc.(Pharm.), ACPR
Victoria General Hospital
Mobile: (250) 217-3183
Email: laura.yoo@viha.ca

ROTATION DESCRIPTION

The clinical rotation in neurology provides the Pharmacy Resident with training in the pharmacotherapy of acute ischemic stroke, secondary prevention of stroke, anticoagulation for atrial fibrillation, intracranial hemorrhage, subdural hemorrhage, traumatic brain injury, epilepsy, central nervous system and spinal infections, and various other neurological conditions.

The rotation is based on the Neurosciences unit at Victoria General Hospital, a 46-bed inpatient unit (of which 4 beds are designated close observation neurology beds) that acts as an island-wide referral centre for neurology care. An extensive interdisciplinary team of neurologists, neurosurgeons, house doctors, registered nurses, licensed practical nurses, pharmacist, physiotherapists, occupational therapists, speech language pathologist, dietician, social worker, and nurse liaison services this unit.

The majority of the rotation will be spent on direct patient care activities. The resident will be expected to assess pharmacotherapy and provide recommendations with a care plan as needed, manage therapeutic drug monitoring of various medications (e.g. vancomycin, phenytoin, and other anti-epileptics), attend daily interdisciplinary rounds, provide patient counseling, complete consults and drug information requests, and provide education to nursing or pharmacy staff. Informal feedback will be provided daily while formal feedback will be done at the midpoint and end of rotation.

Goals & Objectives

The first goal and list of objectives and required activities are specific to this rotation. Goals two to four and accompanying objectives are common to all direct patient care rotations and are based on the Canadian Pharmacy Residency Board (CPRB) accreditation standards.

Rotation-Specific Goal 1:

Provide the Pharmacy Resident with training and experience in neurology.

Objectives

At the conclusion of this rotation the resident will be able to:

1. Describe the pharmacotherapy management and the pathophysiology of medical conditions commonly encountered in neurology such as:
 - a. Ischemic stroke (acute management)
 - b. Hemorrhagic stroke
 - c. Secondary prevention of stroke
 - d. Traumatic brain injury sequelae (e.g. seizures, behavioral symptoms, pain)
 - e. Epilepsy

REQUIRED ACTIVITIES

- The resident will contact the preceptor one week prior to the rotation start date and confirm the start date/time and obtain required reading material.
- The resident will attend interdisciplinary rounds daily
- The resident will assume responsibility for the pharmacotherapy management of patients assigned by preceptor for the duration of their stay
- The resident will provide pharmacokinetic therapeutic drug monitoring for all patients requiring it.
- The resident will meet with the preceptor on a daily basis to present assigned cases and review the pharmacotherapy and monitoring plans of all assigned patients.
- The resident will regularly meet with the preceptor to discuss topics related to neurology.
- The resident will facilitate a journal club presentation to pharmacy staff or provide a nursing in-service
- The resident will provide a case presentation to pharmacy staff

PRECEPTOR CONTACT TIME

1. The preceptor will spend a minimum of one hour per day with the resident discussing patient cases and approaches to identification, prevention, and resolution of drug-related problems, development of therapeutic plans, and development of monitoring plans. This will not include time spent with the resident during rounds.
2. The preceptor will spend a minimum of two hours per week with the resident discussing select therapeutic disease states.

EVALUATIONS & ASSESSMENTS

The resident and preceptor shall complete and review together the mid-point and final evaluations. The mid-point assessment should be completed at the half-way point of the rotation. Final evaluations shall be completed at the end of the rotation.

Mid-point evaluations (Formative):

- resident's self-assessment & preceptor's assessment of the resident

Final evaluations (Summative):

- resident's self-evaluation and evaluation of the preceptor and rotation
- preceptor's evaluation of the resident
- preceptor's self-evaluation (Annually)

Goals and Objectives for All Direct Patient Care Rotations

Goal 2:

Develop and integrate the knowledge and skills required to provide direct patient care as a member of the inter-professional team (CPRB 2018 Standard 3.1).

Objectives:

The resident will be able to:

1. Relate knowledge of the pathophysiology, risk factors, etiology and clinical presentation of medical conditions, including symptoms, physical assessment, relevant diagnostics, and laboratory findings, to patient-specific clinical findings to make appropriate, patient-specific drug therapy recommendations. (2018 CPRB 3.1.1.b)
2. Relate knowledge of pharmacology, pharmacokinetics, pharmaceuticals, and evidence-based therapeutics to patient-specific clinical findings to make

appropriate, patient-specific drug therapy recommendations. (2018 CPRB 3.1.1.b, 3.1.2.a.b.c)

3. Acquire and utilize knowledge of safe medication practices to manage and improve medication use for patients (2018 CPRB 3.2.5, 3.2.6, 3.3.2) by demonstrating safe and appropriate:
 - a. Medication ordering and/or prescribing
 - b. Order clarifications (using approved abbreviations)
 - c. Medication incident reporting
 - d. Application of medication administration policies (eg. parenteral medications), and
 - e. Use of prescribing tools such as pre-printed clinical order sets
4. Develop the skill required to appropriately triage and prioritize providing care to patients who are most likely to experience drug therapy problems. (2018 CPRB 3.1.1.a, 3.1.7)
5. Develop the skill to establish a respectful, professional, ethical relationship with the patient and/or their caregiver(s), and the ability to engage in empathetic, compassionate, non-judgmental, culturally safe and tactful conversations. (2018 CPRB 3.1.4, 3.1.8.a)
6. Develop the skill to gather, evaluate and interpret relevant patient information from all appropriate sources in an organized, thorough and timely manner, including effectively eliciting a patient history and performing assessments, including the ability to report all pertinent findings and explain their significance. (2018 CPRB 3.1.8.d.e). Examples of information gathered include but are not limited to:
 - a. Chief complaint,
 - b. History of present illness
 - c. Past medical history
 - d. Social history
 - e. Review of systems
 - f. Investigations
 - g. Past and current medications
 - h. Ability to report all pertinent findings and explain their significance.
7. Develop the skill to generate a prioritized medical problem list and describe the currently active issues that are responsible for the patient's admission or clinic visit. (2018 CPRB 3.1.8.f)
8. Develop the skill to identify, justify, and prioritize a list of patient-specific drug therapy problems and the ability to assess medication orders for appropriateness using all available information to resolve problems. (2018 CPRB 3.1.8.c, 3.2.4)

9. Develop the skill to establish and incorporate patient's desired outcome(s) of therapy and principles of shared decision making into his/her practice, advocating for the patient in meeting their health-related needs and establishing care plans for individual patients that include consideration of the patient's goals and the roles of the other team members. (2018 CPRB 3.1.5, 3.1.6, 3.1.8.b.f)
10. Develop the skill to identify, prioritize, assess, and justify a list of reasonable therapeutic alternatives and discuss pros/cons of each, considering efficacy, safety, patient factors, administration issues, and cost. (2018 CPRB 3.1.2.b.c, 3.1.8.d.e.f)
11. Develop the skill to create, prioritize, justify, defend and implement a list of patient-specific recommendations for identified drug therapy problems based upon the resident's patient-centred clinical assessment and proactively communicating issues to affected stakeholders, including patients and their families to resolve those issues, when possible (2018 CPRB 3.1.1.d, 3.1.3.c, 3.1.6, 3.1.8.f.g)
12. Develop the knowledge and skill to proactively monitor drug therapy outcomes, revise care plans on the basis of new information and provide patient education related to their medication, self-management and/or monitoring of their condition as applicable. (2018 CPRB 3.1.8.h.i)
13. Develop the knowledge and skill to establish and maintain effective inter- and intra-professional working relationships for collaborative care (2018 CPRB 3.1.3.a.b.e.f) by:
 - a. Engaging in respectful, compassionate, non-judgmental, culturally safe, tactful conversations with members of the healthcare team
 - b. Work effectively with other healthcare professionals by actively participating with other care providers in making care decisions.
 - c. Provide safe and effective transfer of care responsibility during care transitions
 - d. Recognize when care should be handed over to another team member.
14. Develop the skill to proactively communicate care plans using written or electronic means of documentation about the care being provided, in a manner that will optimize clinical decision-making, patient safety, confidentiality and privacy. (2018 CPRB 3.1.1.d, 3.1.8.i)
15. Develop the knowledge and skill required to respond to medication- and practice-related questions (2018 CPRB 3.1.2.a.b.c, 3.5.1.a.b.c.d.e) by:
 - a. Educating others in a timely manner at a level of detail appropriate to the requestor.
 - b. Effectively selecting and navigating resources
 - c. Utilizing a systematic literature search and critical appraisal skills to formulate a response and,

- d. Communicating responses both verbally and in writing, as appropriate.
16. Develop the skill to independently prioritize tasks, think critically, use scientific reasoning, problem solve and manage own time. (2018 CPRB 2.1.5.3, 3.1.1.c, 3.4.1)

Goal 3:

The resident shall apply skill in the management of his/her own practice of pharmacy, to advance his/her own learning, to advance patient care, and to contribute to the goals of the program, department, organization, and profession (2018 CPRB Standard 3.4).

Objectives:

The resident will develop and exhibit the attitudes and behaviours that are hallmarks of a practice leader and mature professional (2018 CPRB 2.1.5.3, 2.1.5.4, 3.1.1.c, 3.4.1) by:

17. Learning to demonstrate responsibility for own learning, by:

- a. Exhibiting self-direction, motivation
- b. Modifying behaviour in response to feedback
- c. Engaging in professional conduct by exhibiting punctuality, communication about deadlines, accepting responsibility for recommendations and reliably following through on all assigned tasks.

18. Learning to recognize role (2018 CPRB 2.1.5.6, 3.1.3.a.b.c.d, 3.2.2, 3.3.4) by:

- a. Demonstrating commitment to the profession and ethical conduct.
- b. Exhibiting respect for colleagues and members of care teams and
- c. Understanding role within the inter-professional team

Goal 4

To provide the resident with the opportunity to take responsibility for their own learning and to customize their individualized learning plan to meet their educational needs and to exhibit the ability to manage one's own practice of pharmacy (CPRB 2018 2.2.2.6 a, e and 3.4.1 and 3.4.2)

Personal Learning Objectives:

To meet this goal the resident shall develop and revise their personal learning plan by developing and documenting personal learning objectives for the rotation.

Process to Document Personal Learning Objectives

Prior to the start of the rotation, the resident will enter three to five personal learning objectives into their one45 procedure log. The resident and preceptor will review these personal learning objectives together on the first day of the rotation. Once the preceptor has read and discussed these personal learning objectives with the resident, they will sign off in the procedure feedback log. The preceptor will then take steps to integrate learning activities into the rotation to help the resident achieve these learning objectives.

The achievement of these objectives will be assessed and documented in section D. of both the midpoint and final evaluation forms.

