



Island Health Pharmacy Practice Residency INTERNAL MEDICINE ROTATION

Preceptors

Moss, Rachel- BSc (Pharm), ACPR
Clinical Pharmacist, 1st Floor- Internal Medicine
Nanaimo Regional General Hospital
Mobile: 250-619-7089
Email: Rachel.Edey@viha.ca

ROTATION DESCRIPTION

The clinical rotation in internal medicine provides the Pharmacy Resident with training and experience in cardiovascular diseases (particularly ACS), respiratory issues, diabetes, renal complications, and infection. The rotation will occur on Floor 1 at NRGH, which is one of the only wards offering telemetry and has a capacity for approximately 32 patients presenting with various complex medical issues. The medicine team consists primarily of internal medicine physicians and hospitalists though there are regularly circulating respirologists, hematologists, endocrinologists, cardiologists, and nephrologists as well. The inter-professional team also includes registered nurses, registered care aides, physiotherapists, social workers, dieticians, occupational therapists, speech-language pathologists, and the clinical pharmacist. Multidisciplinary students (pharmacy and nursing) and family medicine residents are regular participants in the unit. Majority of rotation time is spent on direct patient care activities, including but not limited to:

- proposing interventions and discussing care plans with physicians and nurses
- managing specialized therapies through developing and implementing patient-specific dosing schedules with monitoring plans
 - particularly for warfarin, vancomycin, phenytoin, digoxin, tacrolimus
- documenting interventions and recommendations in the patient's online chart
- answering drug information questions (DIRs) from patients, physicians, and RNs
- completing consults on renal dosing of medications
- interviewing and counselling patients

The remainder of the time is comprised of working on assigned projects such as journal club, a case presentation, teaching an antithrombotic or pharmacology class for nursing students, participating in therapeutic discussions, and developing a pragmatic process for patient evaluation to aid in real life and for the ACPR oral exam. The resident is provided with informal feedback on a daily basis and is formally evaluated at the rotation midpoint and at the end of rotation by the preceptor.

ROTATION GOALS AND OBJECTIVES

Goal 1 is specific to this rotation. Goals 2 to 4 are common to all direct patient care rotations.

Goal 1: Develop and apply knowledge and clinical skills specifically related to this rotation (Internal Medicine).

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)

Common disease states/topics encountered that may be discussed:

- i. Anticoagulation management and VTE prophylaxis
- ii. Acute Coronary Syndromes (UA/NSTEMI, STEMI)
- iii. Atrial fibrillation
- iv. Infections (endocarditis, genitourinary, respiratory, skin and soft tissue)
- v. Renal failure – acute and chronic
- vi. Diabetes, diabetic ketoacidosis
- vii. Acute exacerbation of COPD
- viii. Acute and chronic management of heart failure
- ix. Management of cirrhosis and associated complications
- x. Laboratory values
- xi. Pharmacokinetics
- xii. Others as desired/requested by resident, or as encountered

Rotation-Specific Objectives (in no specific order):

1. Apply knowledge of risk factors of venous thromboembolism versus haemorrhage to assess the appropriateness and recommend a regimen of treatment of prophylactic anticoagulation in internal medicine patients. Emphasis will be on managing warfarin therapy in a variety of multi-comorbid patients.
2. Relate knowledge of the pathophysiology, risk factors, etiology and clinical presentation of atrial fibrillation including symptoms, physical assessment, relevant diagnostics, and laboratory findings, to patient-specific clinical findings to make appropriate, patient-specific drug therapy recommendations in acute and chronic cases.
3. Relate knowledge of pharmacology, pathophysiology, and evidence-based therapeutics to make appropriate drug therapy recommendations for unstable angina/NSTEMI, STEMI, and heart failure.

4. Relate knowledge of the pathophysiology, risk factors, etiology and clinical presentation of diabetes (focus on diabetic ketoacidosis) including symptoms, physical assessment, relevant diagnostics, and laboratory findings, to patient-specific clinical findings to make appropriate, patient-specific drug therapy recommendations.
5. In the setting of infectious disease, relate knowledge of antimicrobial susceptibility, pharmacokinetics, pharmacodynamics, patient compliance, and therapeutics to assess and formulate recommendations to narrow antimicrobial therapy and/or step-down from intravenous to oral therapy.
6. Relate pharmacological knowledge of relevant medications to pathophysiology of AKI/CKD to make/suggest appropriate and patient specific renal dose adjustments.
7. Relate knowledge of pharmacology, pharmacokinetics, pharmaceutics, and evidence-based therapeutics to patient-specific clinical findings to make appropriate, patient-specific drug therapy recommendations for at least TWO of: vancomycin, gentamicin, phenytoin, tacrolimus, and/or digoxin.
8. Begin developing a systematic approach to patient work-up and presentations in preparation for future rotations, oral exam, and life as a clinical pharmacist.

REQUIRED ACTIVITIES

In addition to the stepping into the role as a ward pharmacist (e.g. fielding questions, documenting recommendations, discussing drug therapy options directly with care staff, etc.)

The resident must:

1. Present patient cases to preceptor on a daily basis and discuss appropriate management and follow-up.
2. Discuss select therapeutic disease states including pathophysiology and treatment.
3. Deliver a case presentation to pharmacy staff and/or prepare and present an in-service to nursing students. Topic to be decided as appropriate.
4. Facilitate a journal club on a relevant article for 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.
2. The preceptor will spend a minimum of two hours per week with the resident discussing select therapeutic disease states.

3. Preceptor and resident to work side-by-side on the ward unless otherwise specified to immerse resident in real-world clinical pharmacy environment.

EVALUATIONS

The resident and preceptor shall complete and review together the mid-point and final evaluations. The mid-point evaluation should be completed at the half-way point of the rotation. Final evaluations shall be completed at the end of the rotation. The resident is to facilitate/ coordinate handover meeting between current preceptor and following preceptor.

Mid-point evaluations:

- Preceptor's evaluation of the resident

Final evaluations:

- Resident's self-evaluation
- Resident's evaluation of the rotation and preceptor
- Preceptor's evaluation of the resident
 - To be discussed with following rotation's preceptor as well for handover

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.