



## **Island Health Pharmacy Practice Residency Medication-Use Systems Rotation**

### **Preceptors**

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## **ROTATION DESCRIPTION**

The Medication-Use Systems rotation draws a majority of their competency requirements from standard 3.2 “Manage and Improve Medication-Use Systems” but touches on a variety of competencies in other standards including being part of an Interprofessional team, leadership, practice-related education and project management skills.

The rotation is comprised of a series of meetings with the Pharmacy Manager, and three weeks of dedicated rotation time at an assigned rotation site. Residents are exposed to various aspects of medication-use systems to facilitate the development of a “working knowledge of medication use systems”. Safe medication practices and concepts are integrated into all discussion, objectives and activities throughout this rotation. Rotation activities include both observation and active participation with a variety of the pharmacy assistants/technicians and pharmacists.

The rotation includes a distinct component focused on sterile product compounding and distribution. Residents are provided with an introduction to sterile preparation. Various examples include medications for injection, topical or injectable ophthalmic preparations, bladder instillations, medications for intrapleural administration and

medications intended for the epidural or intrathecal route. The resident will be introduced to parenteral nutrition, oncology protocol orders, the use of aseptic technique for the preparation of IV admixtures (including hazardous medications), and the processing of other patient specific medication orders that require sterile preparation. In addition, key resources and guidelines explicit to sterile product compounding will be explored. During the rotation, the resident will be expected to work and communicate with pharmacy technicians/assistants, dietitians, physicians and other pharmacists to process orders for sterile products and resolve drug related issues as they arise.

By the end of the rotation, residents will be able to use their knowledge and skills regarding medication-use systems to optimize patient safety and patient care. Accordingly, residents will apply their knowledge of medication management tools (such as formularies, automatic substitution policies, medical directives,) and therapeutic strategies (such as therapeutic drug monitoring, drug utilization review, ) to ensure safe and effective use of medications within the health care organization. Residents will also utilize reporting systems (such as adverse drug reports or medication incident reporting) as vehicles to improve the quality of medication use within the health care organization or system.

## **ROTATION GOALS AND OBJECTIVES**

### **Goal 1: To develop and integrate the knowledge required to manage and improve medication-use systems**

Standard 3.2: The resident shall demonstrate a working knowledge of medication-use systems, as well as the roles of pharmacy personnel and other care providers within the system, in order to manage and improve medication use for individual patients and groups of patients.

#### **Objectives/Activities:**

1. Be able to relate the advantages and limitations of key components of the medication-use system used to provide medications to patients. Examples may include but are not limited to unit dosing, traditional dispensing, computerized medication administration records, e-prescribing, clinical decision-support tools, barcode administration, compounding, and intravenous and/or oncology admixture services. (2018 CPRB 3.2.1)
  - a. Under the direction of the pharmacy manager, the resident will compare and contrast a medication use system by formulating three advantages and three disadvantages of the chosen system and summarizing future directions. These concepts will be discussed and summarized in discussion with preceptor and should be included in their learning portfolio.

2. Be able to demonstrate an understanding of the policies and procedures used to prepare and dispense medications in accordance with patients' needs. (2018 CPRB 3.2.3)
  - a. Locate departmental P&P, Medication P&P and Corporate P&P
  - b. Articulate the difference between the different P&Ps.
  - c. When presented with common scenarios during practice, or simulated practice, locate the appropriate P&P that guides decision-making.
3. Be able to assess medication orders to identify and resolve problems. (2018 CPRB 3.2.4)
  - a. Prioritize medications orders and recognize the difference between stat, now and regular orders.
  - b. Assess order using the 5 R's – right drug, dose, patient, schedule, formulation
  - c. Assess for organ dysfunction (renal, hepatic), drug allergies, duplications, and interactions.
  - d. Enter medication orders
  - e. Verify medication orders
  - f. Fill medication orders
  - g. Demonstrate knowledge of key components of sterile product preparation by assessing an order for a compounded sterile product, parenteral oncology product, parenteral nutrition product and actively complete various tasks related to sterile product preparation.
4. Be able to work in cooperation with pharmacy, nursing, and medical staff, as well as other members of the organization's team, to improve medication use for individual patients and groups of patients. (2018 CPRB 3.2.2)
  - a. Investigate one PSLS event under the direction of the site coordinator or delegate
  - b. Evaluate one request for addition to ward stock utilizing Med P&P C.08.
  - c. Perform a medication room audit and be prepared to address deficiencies discovered during that audit.
  - d. Familiarize themselves with nursing medication access and documentation procedures such as use of the medication administration records (MARs), medication carts, ward stock, missing doses, and access to needed medications after the pharmacy is closed.
5. Integrate best available evidence into decision-making (2018 CRPB 3.1.2), with a focus on when and how we supply drugs that are not on formulary

- a. Locate the medication approval algorithm on the pharmacy intranet site.
  - h. Work through common non-formulary scenarios such as patients' own medications, therapeutic substitutions, formulary restrictions and exclusions.
- 6. Be able to clarify medication orders with prescribers and document such clarifications appropriately. (2018 CPRB 3.2.5)
  - a. Complete at least one order clarifications
  - b. Under the guidance of the pharmacy manager, discuss differences in verification processes when done centrally in the dispensary versus on the patient care ward. Follow-up on this concept will occur after their first ward-based rotation.
- 7. Demonstrate and describe the use of safe medication practices. (2018 CPRB 3.2.6). Safe medication practices will be incorporated throughout the rotation. Specifically:
  - a. Evaluate one ward stock request for a high alert medication.
  - b. Assess one narcotic discrepancy under the direction of a pharmacy technician or site coordinator.
  - c. Locate and familiarize themselves with the N&C P&P and participate in the delivery of narcotic and control drugs under the direction of a pharmacy technician.
  - d. Demonstrate knowledge of safe medication practices in sterile products compounding including:
    - i. Locate and outline important and appropriate resources that guide sterile product assessment and preparation.
    - ii. Describe the role and function of both the technician and pharmacist in the area of sterile products.
    - iii. Organization and Storage of medications and equipment used in the preparation of sterile products.
    - iv. Articulate the role of the drug infusion library in ensuring safe administration of intravenous medications.
    - v. Participate in one mini-project with the Medication Safety Pharmacist. (also addresses Project standard)

**Goal 2: To demonstrate the attitudes and behaviours characteristic of a mature health care professional by developing the ability to manage one's own practice of pharmacy**

**Objectives (note: These objectives will be evaluated throughout the rotation, as they are integral to all discussions and activities of the rotation).**

1. Demonstrate commitment to the profession, collaboration and cooperation with other health care workers and an understanding of the role of the pharmacist in the Interprofessional team in the improvement of medication use for patients. [2018 CPRB 2.1.5.6, 3.1.3.a.b.c.d, 3.2.2, 3.3.4]
2. Consistently demonstrate efforts to refine and advance critical thinking, scientific reasoning, problem-solving, decision-making, time management, communication, self-directed learning, and team/Interprofessional skills that are the hallmarks of practice leaders and mature professionals. [2018 CPRB 3.4.1] (review of orders and oncology protocols)
3. Be able to manage his/her own practice and career, setting priorities to establish healthy work–life balance, and shall implement processes to ensure personal practice improvement. . [2018 CPRB 3.4.2]

### **ROTATION SPECIFIC REQUIRED ACTIVITIES**

The resident will track key activities in the procedural log including:

#### *Medication order assessment and verification*

1. Accurately assess and verify medication orders including:
  - a. Oral medication
  - b. Parenteral medication
  - c. Parenteral medication requiring sterile product preparation
  - d. Parenteral oncology product requiring sterile product preparation
  - e. Parenteral nutrition product for accuracy, stability and resolve any issues with the dietician or physician if required. (including entry into both Cerner and ABACUS)
  - f. Manage a medication order for a patient with a documented allergy/intolerance
  - g. Manage a problem medication order.
  - h. Manage an order for “patient’s own medication” (POM)
  - i. Manage an order for a non-formulary medication with and without a therapeutic interchange.
3. Submit an adverse drug reaction report to Health Canada, or if one has not occurred in your rotation, review reports of a reaction as outlined by your preceptor.
4. Submit a medication incident report to the Patient Safety and Learning System (PSLS) or if one has not occurred in the rotation, review reports of an medication-related incident as outlined by your preceptor.

### *Sterile Product Preparation*

1. Locate NAPRA standards on the intranet
2. Locate the IV monographs and outline how the contents can help when assessing and preparing sterile products.
3. Locate Aseptic Compounding procedure (ACP) and chemotherapy compounding cards and utilize these cards when completing your sterile product preparation assignment.
4. Locate an MSDS sheet for a chemical compound or a hazardous medication prepared in the sterile room.
5. Describe the role of both the pharmacists and technician in the safe assessment, entry into the information system, verification, preparation and checking of both non-hazardous and hazardous compounded sterile products.
6. Accurately describe the concepts of aseptic sterile product preparation to the preceptor and demonstrate appropriate technique when preparation sterile products. .
7. Correctly gown and scrub in to prepare a sterile product.
8. Prepare various sterile products as directly by the preceptors.
9. Check a final compounded sterile product in the pass through.
10. Describe the appropriate way of transporting completed sterile preparations to their designated locations(s).

### **Rotation Preparation Prior to the First Day**

1. Review the goals and objectives of the rotation.
2. Formulate personal learning objectives for the rotation and enter them into the one45.com procedure log. Communicate these objectives with your preceptor on the first day so they can be integrated into the rotation and evaluated throughout.
3. Review the sterile products pre-readings.
4. Review the Medication-Use Systems pre-readings.

### **PRECEPTOR CONTACT TIME**

The resident will meet with the pharmacy manager, along with the site supervisors, at the beginning to review rotation activities and objectives, at the mid-point to monitor process and at the end of the rotation for evaluation. Throughout the rotation, the site supervisor may delegate supervision and preceptorship to other pharmacy technicians or pharmacists as required. A schedule will be provided in advance of the rotation that may need revision as the rotation progresses.

### **EVALUATIONS**

1. Resident's self-evaluation and evaluation of the preceptor and rotation
2. Preceptor's evaluation of the resident
3. Preceptor's self-evaluation (Annually)
4. Medication use systems assignment