

**Island Health Pharmacy Practice Residency**

**DRUG DISTRIBUTION AND STERILE PRODUCTS ROTATION**

**Preceptors**

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**ROTATION DESCRIPTION**

The Drug Distribution and Sterile Products (DD/SP) rotation takes place primarily at two pharmacy sites in South Island (inpatient pharmacies at the Royal Jubilee Hospital and Victoria General Hospital), and is comprised of a series of meetings with the Pharmacy Manager, Geo 3 & 4, and three weeks of dedicated rotation time at an assigned rotation site. Residents are given broad exposure to various aspects of the drug distribution system, such as solving drug related problems, reviewing distribution policies, reporting medication errors and other activities to facilitate the development of a “working knowledge of medication use systems”. Rotation activities include both observation and active participation with a variety of the pharmacy assistants/technicians (e.g. order entry, maintenance of night cupboard, wardstock/narcotic supplies and the use of dispensing cabinets). The resident will also conduct pharmacist-related activities such as medication reconciliation, order verification and adhering to all policies and procedures to ensure medication safety.

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 are expected to understand and be able to effectively explain all aspects of the drug distribution and medication use systems in order to be able 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, etc) and therapeutic strategies (such as therapeutic drug monitoring, drug utilization review, etc) 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.

The resident will work with a variety of different pharmacists throughout the distribution rotation who will be responsible to oversee that the specific components of the distribution rotation are achieved.

**ROTATION GOALS AND OBJECTIVES**

**Goal 1:** Develop and integrate the knowledge related to drug distribution (including sterile products), to manage, improve, and ensure safety of medication use for individual patients and groups of patients.

**Objectives:**

The resident will be able to:

1. Clearly, concisely, and completely describe and relate the advantages and limitations of key components of the medication use system with respect to the patient, the department and the organization (e.g. unit dose, traditional system, computerized medication administration records, computerized physician order entry, clinical decision-support tools, bedside barcode administration, sterile product preparation) to another health care professional (e.g. the preceptor). (CPRB 3.2.1)
2. Collaborate with other health care professionals, including pharmacists, pharmacy assistants or technicians, nurses, dietitians and physicians. (CPRB 3.2.2)
3. Assess prescriptions for accuracy, appropriateness, and adherence to health care organizational policies and practices. (CPRB 3.2.4.a)
4. Clearly and accurately transcribe medication orders onto the medication profile and/or health record, consistent with organizational policies and practices. (CPRB 3.2.4.b)
5. Effectively resolve problem medication orders in consultation with medical and nursing staff. (CPRB 3.2.2, 3.2.4.c)
6. Prepare and dispense medications according to organizational policies and procedures and legal requirements. (CPRB 3.2.3)
7. Demonstrate a working knowledge of sterile product preparation and the basic principles of aseptic technique. (CPRB 3.2.3)
8. Demonstrate a working knowledge of safe medication practices. (CPRB 3.2.5)
9. Identify and appropriately report medication incidents. (CPRB 3.2.5)
10. Explain, and educate others about health care organizational practices and policies related to sterile products and narcotic and controlled drugs. (CPRB 3.2.1, 3.2.2)

**Goal 2:** Demonstrate the attitudes and behaviours that are hallmarks of a practice leader and mature professional.

**Objectives:**

The resident will:

1. Demonstrate responsibility for own learning, through the refinement and advancement of critical thinking, scientific reasoning, problem-solving, decision-making, time management, communication, self-directed learning, and team/interprofessional skills. (CPRB 3.4.1)
2. Demonstrate commitment to the profession, collaboration and cooperation with other healthcare workers, and an understanding of the role of the pharmacist in the interprofessional team in the improvement of medication use for patients. (CPRB 3.1.1, 3.2.2, 3.3.3)

**REQUIRED ACTIVITIES**

***Drug Distribution***

1. The resident will carry out the following functions involved in medication order review:
	1. Receiving medication orders
	2. Prioritizing medications orders including procedure for *stat* orders.
	3. Assessing for the 5 R’s – right drug, right dose, right patient, right schedule and right formulation
	4. Assessing for renal dose adjustment, drug allergies, duplications and interactions
	5. Entering medication orders
	6. Verifying medication orders
	7. Filling medication orders
	8. Common problem-solving scenarios such as non-formulary requests, patient’s own medications, therapeutic substitutions, missing dose requests and order clarification
2. The resident will become familiar with concepts of wardstock management by conducting at least one medication storage room audit with a nursing representative and reflecting on what they learned.
3. The resident will become familiar with narcotic control policies and procedures by delivering narcotics to a patient care ward under the direction of a pharmacy assistant/technician and to conduct one narcotic discrepancy investigation under the direction of the site coordinator or designate.
4. Investigate one PSLS event under the direction of the site coordinator or designate.
5. The resident will participate in a top-up of the Acudose system and in a manual top-up of wardstock on a patient care ward.
6. The resident will become familiar with nursing medication access and administration documentation procedures by reviewing the following:
	1. Medication Administration Record - how it is produced; how changes are made; how meds are signed off
	2. Use of medication cart to deliver patient-specific doses
	3. Access to wardstock, including use of electronic storage cabinets (e.g. Acudose)
	4. Procedure for missing doses
	5. Procedure for refilling medications
	6. Night-time access to drugs
	7. Any other administration procedures unique to site

***Activities to be completed during/after meetings with Pharmacy Manager, Geo 3 &4”***

1. The resident will compare and contrast an automated dispensing system and a manual wardstock system. The resident will formulate three advantages and three disadvantages of each system. These concepts will be discussed and summarized in discussion with preceptor and should be included in their learning portfolio.
2. The resident will formulate a Medication Flow Chart for unit dose and traditional dose distribution system starting with the time that the order is written, documenting each step along the way, and finishing when the patient receives the medication. This flow chart should include process for initial doses, and refilled doses. The resident is to note potential for error at each step, and possible solutions/procedures to avoid errors.
3. The resident will discuss and understand the integral role that pharmacy plays in the ‘Close Loop Medication System’ and how this enhances medication safety.

***Sterile Products***

\*\*\*Reading Materials and Assignments are site-specific\*\*\*

**Prior to the beginning the sterile products component of the rotation, residents must complete the supplied reading materials and activities.**

**During the sterile products component of the distribution rotation, residents will:**

1. Be able to demonstrate knowledge of **safe medication practices** in sterile products via the following actions:
	1. Preparing sterile compounds using aseptic technique. Be able to accurately describe the *concepts* of aseptic sterile preparation to the preceptor.
	2. Correctly gowning and scrubbing-in.
	3. Assess parenteral nutrition orders for accuracy and stability, and resolve issues with the dietician or physician if required.
	4. Locate an MSDS sheet for a chemical compound or a hazardous medication prepared in the sterile room.
	5. Safely and accurately check sterile preparations.
	6. Describe the appropriate way of transporting completed sterile preparations to their designated location(s).
	7. Recognize and describe typical sterile product medication orders.
	8. List important and appropriate resources that may be accessed to review and verify medication orders.
	9. Describe the role of both pharmacists and technicians in safe verification, preparation and checking of oncology protocols.
2. Be able to demonstrate knowledge of the **key components** of sterile products by discussing the following key topics:
	1. Role and function of both the technician and pharmacist in the area of sterile products.
	2. Organization and Storage of Medications and Equipment used in the preparation of sterile products.
	3. Policies and procedures related to hazardous drug preparation, administration and handling in the hospital.
	4. NAPRA Standards as they relate to assigning risk levels and Beyond Use Dates (BUD’s) to compounded sterile products.
	5. Location of aseptic compounding cards and chemotherapy cards on the “o-drive” and pharmacy Share-point site.
3. Maintain a tracking document on a daily basis that records and shows that all required learning activities are being demonstrated throughout the rotation. **Examples** of activities that should be tracked include the following:
	1. Sterile preparations compounded in the IV room.
	2. Medications that have been checked in the pass-through.
	3. Parenteral nutrition orders verified in Abacus.
	4. Other patient orders that have been assessed and processed during the order verification process.
	5. All collaborative interactions with other health care professionals.
	6. All order clarifications or order changes that have been written and recorded in the patient chart.
	7. Readings and activities that have been completed as outlined in the reading materials package.

**PRECEPTOR CONTACT TIME**

The resident will report to the site supervisors for their assigned site during the dedicated three weeks of DD/SP rotation time. The site supervisors may delegate supervision and preceptorship of the resident during the rotation to other drug distribution staff, including pharmacists and pharmacy technicians/assistants as required. A schedule will be provided in advance of the rotation.

Residents will also have scheduled contact time with the Pharmacy Manager, Geo 3 & 4, before, during, and after the dedicated DD/SP rotation to facilitate the designated rotation activities above. Most of these meetings will be conducted with all residents together. Residents will be notified as to when these meetings are to take place.

**EVALUATIONS**

The site supervisors shall complete the final evaluation of the resident at the end of the dedicated three weeks of DD/SP rotation time. A separate evaluation will be completed by the Pharmacy Manager, Geo 3 & 4, for the medication use systems assignments directed by the Manager.

**Final evaluations:**

* resident’s self-evaluation
* resident’s evaluation of the preceptor and rotation
* preceptor’s evaluation of the resident – rotation and medication use systems assignment