



Oncology Ambulatory Care I & II, PGY1 Pharmacy Rotation **(Infusion and Ambulatory clinics)**

Preceptors: Kelly Fritz, PharmD serves as the primary coordinator for this rotation, though several infusion and clinic pharmacists participate in precepting the resident.

Office: 50174

Hours: 8 a.m. to 5 p.m.

Duration: 4 weeks

Site Description:

The Ambulatory Oncology Pharmacy rotation includes two primary areas: the Huntsman Cancer Hospital infusion pharmacy and the Huntsman Cancer Hospital ambulatory clinics.

The Infusion Room has 32 chairs and 6 beds where 65 to 80 patients receive treatment on weekdays and around 10-15 patients are treated on Saturdays. The Infusion Pharmacy is also the main location for all outpatient clinic needs including outpatient infusion treatments given in clinic, injections given in clinic, and drug information questions when the clinic pharmacist is unavailable. There are currently three clinical pharmacists that are assigned to work in the infusion area. Technicians in this area are proficient in PhaSeal®, inventory management, and engaged in double check processes for safety.

The Huntsman Cancer Hospital Ambulatory clinics are the location in which outpatients are seen at the Huntsman Cancer Hospital. The ambulatory clinics have over 100,000 patient visits per year. Currently there are 10 clinical service lines (i.e. BMT, breast cancer, etc) that have clinical pharmacists assigned to work in the outpatient clinics.

Pharmacists ensure safety and appropriateness of chemotherapy regimens, educate patients about chemotherapy, train residents and students, and participate in process improvements including but not limited to treatment plan development/optimization, clinic injections flow, and turn-around time advances.

Role of the Pharmacist:

The **role of the ambulatory oncology pharmacist** is to work directly with oncology nurse practitioners, physician assistants, oncologists, and hematologists to optimize pharmaceutical care of hematology and oncology patients in the infusion room or ambulatory care clinics at the Huntsman Cancer Institute. The resident's primary focus is to develop the knowledge and skills needed to achieve competency in the provision of patient care and practice management in an outpatient hematology/oncology infusion center. This includes clean room training specific to chemotherapy processes and completion of institutional chemotherapy certification.

Residents will also spend time with clinic pharmacists specializing in nausea/vomiting and

hematology to discuss supportive care topics related to outpatient chemotherapy.

PGY1 Objectives

- Objective R1.1.1: (Applying) Interact effectively with health care teams to manage patients' medication therapy. (Am Care1)
- Objective R1.1.2 (Applying) Interact effectively with patients, family members, and caregivers.
- Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy. (Am Care 1 and 2)
- Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy. (Am Care2)
- Objective R1.1.5: (Creating) Design or redesign safe and effective patient-centered therapeutic regimens and monitoring plans (care plans). (Am Care1 and 2)
- Objective R1.1.6: (Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) by taking appropriate follow-up actions. (Am Care 2)
- Objective R1.1.7: (Applying) Document direct patient care activities appropriately in the medical record or where appropriate. (Am Care 1)
- Objective R1.1.8: (Applying) Demonstrate responsibility to patients. (Am Care 2)
- Objective R1.2.1: (Applying) Manage transitions of care effectively. (Am Care 1)
- Objective R3.1.2: Apply a process of on-going self-evaluation and personal performance Improvement. (Am Care 1 and 2)
- Objective R3.1.2: Apply a process of on-going self-evaluation and personal performance Improvement. (Am Care 1 and 2)

Activities Evaluated and Taught:

Rotation Activities	RLS Objectives	Teaching Methods
<p>Residents are expected to establish and maintain a respectful relationship with nurses, physicians, midlevel practitioners, and other members of the health care team.</p> <p>If nursing schedule permits, residents will spend a half-day in the infusion room with nursing staff.</p> <p>The resident will spend at least 8 hours in the chemo prep area learning to adequately prepare chemotherapy and related medications. Instruction will also be provided in use of PhaSeal closed systems and compounding of investigational products.</p>	R1.1.1 Interact effectively with health care teams to manage patients' medication therapy	IMCF
<p>The resident is expected to see a minimum of 20 patients (or separate counseling episodes) during the 4 week rotation.</p> <p>These visits may be for medication histories, new medication counseling, supportive care (nausea, vomiting, alopecia, anorexia, pain control, constipation, diarrhea, stomatitis, etc)</p>	R1.1.2 Interact effectively with patients, family members, and caregivers	IMCF

Rotation Activities	RLS Objectives	Teaching Methods
<p>After each patient interaction the resident will discuss with the preceptor what went well vs what could have been improved on in the interaction.</p>		
<p>Residents are required to review chemotherapy-related policies during the first week of rotation, and after completion of the chemo certification process are allowed to dispense chemotherapy within the confines of the organization's policies and procedures.</p> <p>Residents are responsible for ensuring the accuracy of medication profiles for chemo patients they review. All medications related to each cycle of chemo (including oral chemotherapy) will be reviewed prior to commencement of IV chemotherapy.</p> <p>Each chemotherapy patient is evaluated for appropriateness of doses based on patient parameters (lab values, weight), clinical guidelines, intent of therapy (palliative vs curative), interacting medications and their effects on chemotherapy dosage, compliance (physical barriers vs financial burdens), and any other factor that may reduce optimal outcomes.</p> <p>The resident is required to read and understand all of the institution's policies related to chemotherapy. Each time the resident initiates a chemotherapy-related care plan, it will be done in accordance to those policies.</p>	<p>R1.1.3 Collect information on which to base safe and effective medication therapy</p>	<p>IMCF</p>
<p>Each chemotherapy patient is evaluated for appropriateness of doses based on patient parameters (lab values, weight), clinical guidelines, intent of therapy (palliative vs curative), interacting medications and their effects on chemotherapy dosage, compliance (physical barriers vs financial burdens), and any other factor that may reduce optimal outcomes.</p>	<p>Objective R1.1.4: Analyze and assess information on which to base safe and effective medication therapy</p>	<p>IMCF</p>
<p>Residents are responsible for ensuring the accuracy of medication profiles for chemo patients they cover. All medications related to each cycle of chemo (including oral chemotherapy) will be reviewed prior to commencement of IV chemotherapy.</p> <p>Based on his/her assessment of the factors discussed in R1.1.3, the resident will decide to proceed with chemotherapy as ordered or recommend changes appropriate to the patient situation. The preceptor supervises this process and provides the resident with feedback after each patient is discussed</p> <p>Use of tertiary references, primary references, PubMed, and guidelines (NCCN, ASCO, etc) will be covered on this rotation. Each time the resident responds to a question or prepares for</p>	<p>R1.1.5 Design or redesign safe and effective patient-centered therapeutic regimens and monitoring plans (care plans)</p>	<p>IMCF</p>

Rotation Activities	RLS Objectives	Teaching Methods
<p>topic discussion the preceptor and resident will discuss which references are most appropriate for the task at hand.</p>		
<p>The resident will follow through on recommendations for treatment plans including dosing modifications, use of supportive treatments, etc. The resident will take personal ownership to ensure patients receive accurate chemotherapy dosing and adjunct treatments.</p>	<p>Objective R1.1.6: Ensure implementation of therapeutic regimens and monitoring plans (care plans) by taking appropriate follow-up actions.</p>	<p>MCF</p>
<p>Understand what interventions or issues are typically documented by oncology pharmacists based on the various audiences that read these notes, and at what point in the patient’s care (i.e. transfer, discharge, chemo counseling, medication histories, supportive care counseling, monitoring/assessment of adverse events).</p> <p>Residents will be provided ample feedback on how to better communicate various medication-related issues so that their recommendations are well received by other health professionals and well understood by other pharmacists.</p>	<p>R1.1.7 Document direct patient care activities appropriately in the medical record or where appropriate</p>	<p>IMCF</p>
<p>The resident will follow through on recommendations for treatment plans including dosing modifications, use of supportive treatments, etc. The resident will take personal ownership to ensure patients receive accurate chemotherapy dosing and adjunct treatments.</p>	<p>Objective R1.1.8: Demonstrate responsibility to patients.</p>	<p>CF</p>
<p>As appropriate inform clinical pharmacists and other health-care professionals about follow up items from clinic or infusion encounters.</p>	<p>R1.2.1 Manage transitions of care effectively</p>	<p>CF</p>
<p>The resident will complete our institution’s chemo certification exam and practicum to establish baseline competency in this area. Instruction and feedback will be provided throughout the rotation to help the resident further develop these skills.</p> <p>Use and incorporate self-evaluation and feedback from preceptors to continuously improve performance on the rotation.</p>	<p>R3.1.2 Apply a process of on-going self-evaluation and personal performance improvement</p>	<p>CF</p>
<p>Drug information requests will be assigned to the resident after details are taken by the preceptor. As the rotation progresses, residents will be tasked with responding to drug information requests from ACC and HCI clinics and will be coached by the preceptor as they determine the “real” question and details required.</p> <p>Use of tertiary references, primary references, PubMed, and guidelines (NCCN, ASCO, etc) will be covered on this rotation. Each time the resident responds to a question or prepares for topic discussion the preceptor and resident will discuss which references are most appropriate for the task at hand.</p> <p>Once the resident has established proficiency at retrieving information from appropriate sources, the resident will work on collating these references to generate a response.</p>	<p>R4.1.2 Use effective presentation and teaching skills to deliver education</p>	<p>MCF</p>

Rotation Activities	RLS Objectives	Teaching Methods
<p>Topics discussed in this process are: when to use primary vs tertiary literature, what constitutes an “appropriate” primary reference, when guidelines should be used instead of primary literature</p> <p>The resident will also have to respond to clinical questions where there isn’t enough information to answer without conjecture. This process will be discussed as it arises.</p> <p>By the end of the rotation, the resident should be able to appropriately respond to an information request and be aware of the limits of his/her own knowledge base</p> <p>The resident should also be able to respond appropriately when the clinical question lies outside the limits of his/her knowledge base and requires further follow-up.</p>		

I: Direct Instruction, M: Modeling, C: Coaching, F: Facilitating

Reading and Preparatory Work:

Topic discussions will be tailored to the specific goals of each resident and planned working environment post-residency. Topic discussions may include, but are not limited to, nausea/vomiting, CBC interpretation, anemia, and erythropoietic agents, basic discussion of various cancers (lung, prostate, colorectal cancer, breast, etc).

- Complete BEACON training (done as part of residency orientation in July)
- Complete Chemo certification via LMS prior to or during the first week
 1. Video on Pulse: [“Chemotherapy Competency”](#)
 2. Exam in LMS: “Oncology Pharmacist Chemotherapy Certification Re-Certification Exam”
- Review hospital policies related to chemotherapy prior to beginning of rotation
 1. Antineoplastic and immune modulating agents: ordering these medications
 2. Extravasation of anti-neoplastic agents
 3. Safe handling of hazardous drugs
 - i. Overview and general procedures
 - ii. Preparing and reconstituting hazardous drugs
 - iii. Administration of hazardous drugs
 - iv. Handling requests for special dosage forms of hazardous medications
 - v. Gene therapy products
 - vi. Medical surveillance of employees with occupational exposure to hazardous drugs

- Review basic pharmacology (ie reread chapter from DiPiro, Goodman and Gilman, or similar text) of the following classes of antineoplastic medications prior to beginning of rotation

Taxanes	Monoclonal antibodies
Alkylating agents	Platinums
Anthracenediones/Anthracyclines	Histone deacetylase inhibitors
Antimetabolites	Topoisomerase II inhibitors
Camptothecin analogs	Vinca alkaloids
DNA Methylation inhibitors	Chemoprotective agents
Proteasome inhibitors	Rescue/bio-modulating agents

Typical Daily/Weekly/Monthly Activities:

1. Daily hours: 8am until 5pm (may vary)
2. Daily tasks: patient chart review, review and manipulation of EPIC treatment plans and therapy plans, compounding and checking of medications, and responding to clinical questions
3. Patient education tasks: chemo counseling for new patients, review of OTC and herbal products, answering therapy-related questions from patients; the resident is expected to see a minimum of 20 patients (or separate counseling episodes) during the 4 week rotation
4. Resident education tasks: attending weekly METS sessions, topic discussions, patient presentations
5. Written project: resident will complete a written project to be determined based on the needs of the Infusion Room Pharmacy and the specific goals of the resident

Preceptor Interaction

Preceptors and residents share the same workspace for the majority of this rotation. However, the resident should check in with the preceptor upon arrival and notify the preceptor any time he/she leaves for meetings, educational sessions, etc.

Communication:

Communication will occur with preceptors daily, and any questions or rotation related issues may be emailed to the primary preceptor throughout the rotation. The resident may call the main office phone for sick calls/emergency issues.

Expected progression of resident responsibility on this learning experience:

First day:

- Resident to orient to infusion room, staff, treatment plans and therapy plans. Plan to read/review policies as well as chemotherapy competency. Resident to shadow the process of the infusion pharmacist.

- Residents should describe prior experiences, their baseline strengths and areas needing improvement during the rotation.

Week 1:

- Collect clinical information for work up and presentation to preceptor of 3-4 patients daily
- Select a suitable presentation topic for in-service, or select a suitable written project
- Use Pubmed, NCCN, and other reputable resources to identify relevant literature and answer drug information questions
- Interact professionally with the team such that they know the resident's name by Friday
- Review patient education with preceptor prior to giving education to ensure accuracy
- Document at least 5 patient encounters or counseling sessions for the week

Week 2:

- Collect clinical information for work up and presentation to preceptor of 4-5 patients daily
- Use Pubmed, NCCN, and other reputable resources to identify relevant literature and answer drug information questions
- Interact professionally with the team
- Demonstrate increased ability to recognize medication problems
- Continue to provide patient education with some input from preceptor
- Document at least 5 patient encounters or counseling sessions for the week

Week 3:

- Collect clinical information for work up and presentation to preceptor of 6-7 patients daily
- Identify all common medication issues and some complex issues
- Efficiently review and develop initial treatment plans prior to meeting with preceptor
- Use patient data to recommend changes to treatment based on factors such as: not meeting parameters, patient reported issues, etc
- Independently counsel or provide patient follow up education on at least 5 patients

Week 4:

- Collect clinical information for work up and presentation to preceptor of 6-7 patients daily
- Independently identify the majority of opportunities to optimize medication treatment regimens using patient data.
- Efficiently review and develop initial treatment plans prior to meeting with preceptor

- Efficiently use best evidence to answer drug information questions and create daily recommendations for patient care.
- Provide accurate information and recommendations to the team and patients with preceptor facilitation
- Be sought by clinical team to participate in clinical work.
- Provide high quality pass-off to clinic pharmacist or other infusion pharmacist
- Independently counsel or provide patient follow up education on at least 5 patients (should reach total of 20)
- Complete all presentations and projects, making required edits and clarifications, and providing final deliverables to the preceptor for review by Wednesday.

Evaluation Strategy

Residents will be provided with verbal feedback on a frequent (at least every other day, possibly several times daily) basis. PharmAcademic will be used for documentation of scheduled evaluations and should be completed within 1 week of rotation completion.

What type of evaluation	Who	When
Midpoint	Preceptor, Resident	End of week 2
Summative	Preceptor	End of learning experience
Summative Self-evaluation	Resident	End of learning experience
Preceptor, Learning Experience Evaluations	Resident	End of learning experience