



Inpatient Hematology (PGY1)

Preceptors (*primary): Michael R. Filtz, PharmD, BCOP; Clinical Pharmacist
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Office: 7-4647

Hours: 7:00-5:30

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General Description

Duration: 4 weeks

Site Description:

The Huntsman Cancer Hospital has 100 inpatient beds, 25 of which are covered by the Hematology service. The Huntsman Cancer Hospital is one of 4 hospitals in the University of Utah Health system, and provides inpatient, infusion, ambulatory and investigational drug services to patients in the intermountain west.

Role of the Pharmacist:

The **role of the hematology clinical pharmacist** includes working with the hematology team to optimize pharmaceutical care of inpatients on this service, participating in hematology interdisciplinary medical teams, ensuring safety and appropriateness of chemotherapy regimens and educating residents and students. Each multidisciplinary team may consist of hematology nurse practitioners, physician assistants, medicine residents, medicine interns, hematology fellows and attending physicians. Additional roles and responsibilities of the hematology pharmacist include medication management, admission and discharge medication reconciliation, and patient counseling. In addition, pharmacists perform chemotherapy order entry and participate in a double check system for every chemotherapeutic agent ordered.

Rotation Description:

Typical expectations of residents include the following: working up approximately 2-12 hematology patients each day, interacting with the nurse practitioners, physician assistants, nurses, physicians, and oncologists to identify and resolve medication-related problems for these patients, attending rounds every morning, discussions with the preceptors on a variety of hematology topics, formal patient presentations to the preceptor, attending weekly hematology pharmacy resident "killer sessions", attending pharmacy grand rounds when schedule permits, responding to drug information requests from the providers, and possibly precepting pharmacy students. The resident will provide and document therapeutic drug monitoring services for patients on their team receiving drugs requiring monitoring. The

resident is responsible for providing and documenting education to patients on their team who will be discharged.

Good communication and interpersonal skills are vital to success in this experience. The resident must devise efficient strategies for accomplishing the required activities in a limited time frame.

Disease States

Common disease states in which the resident will be expected to gain exposure through literature review, topic discussion, and/or direct patient care experience including, but not limited to:

- Leukemias
 - AML, ALL, APML, CML, CLL
- Benign Hematologic Disorders
 - Hemophilia, aplastic anemia, PCV, etc
- Coagulopathies
 - DVT, PE, etc.
- Infectious Diseases
 - Neutropenic fever, infection prophylaxis, HCAP, etc.
 - .
- Oncologic Emergencies
 - Hypercalcemia, Cord Compression, Tumor Lysis, etc.
- Palliative Care
 - Pain control, constipation, nausea/vomiting control, etc.

RLS Goals and Objectives

(FIRST acute care rotation):

GOAL R1.1 In collaboration with the health care team, provide safe and effective patient care to a diverse range of patients, including those with multiple co-morbidities, high-risk medication regimens, and multiple medications following a consistent patient care process

OBJ R1.1.1 Interact effectively with health care teams to manage patients' medication therapy

OBJ R1.1.2 Interact effectively with patients, family members, and caregivers

OBJ R1.1.4 Analyze and assess information on which to base safe and effective medication therapy

OBJ R1.1.5 Design or redesign safe and effective patient-centered therapeutic regimens and monitoring plans (care plans)

OBJ R1.1.7 Document direct patient care activities appropriately in the medical record or where appropriate

OBJ R1.1.8 Demonstrate responsibility to patients

GOAL R1.2 Ensure continuity of care during patient transitions between care settings

OBJ R1.2.1 Manage transitions of care effectively

GOAL R3.1 Demonstrate leadership skills

OBJ R3.1.1 Demonstrate personal, interpersonal, and teamwork skills critical for effective leadership

(SECOND/subsequent acute care rotation):

GOAL R1.1 In collaboration with the health care team, provide safe and effective patient care to a diverse range of patients, including those with multiple co-morbidities, high-risk medication regimens, and multiple medications following a consistent patient care process

OBJ R1.1.1 Interact effectively with health care teams to manage patients' medication therapy

OBJ R1.1.3 Collect information on which to base safe and effective medication therapy

OBJ R1.1.6 Ensure implementation of therapeutic regimens and monitoring plans (care plans) by taking appropriate follow-up actions

OBJ R1.1.8 Demonstrate responsibility to patients

GOAL R1.3: Manage aspects of the medication-use process related to formulary management

OBJ R1.3.2 Manage aspects of the medication-use process related to formulary management

GOAL R3.1 Demonstrate leadership skills

OBJ R3.1.2 Apply a process of on-going self-evaluation and personal performance improvement

GOAL R3.2 Demonstrate management skills

OBJ R3.2.4 Manages one's own practice effectively

GOAL R4.1 Provide effective medication and practice-related education to patients, caregivers, health care professionals, students, and the public

OBJ R4.1.1 When engaged in teaching, select a preceptor role that meets learners' educational needs

Rotation Activities	Objective Number & Description	Teaching Method
FIRST ACUTE CARE ROTATION		

Rotation Activities	Objective Number & Description	Teaching Method
<p>The resident will attend rounds daily and provide recommendations on medication therapy as well as be available in the team room before and after rounds to answer the team's medication related questions.</p> <p>The resident will discuss patients they are following with the preceptor on a daily basis.</p> <p>Residents will be respectful of other team members if they choose to only partially accept the resident's plan or do not accept it at all. Subsequent discussions with the preceptor should occur to discuss follow-up plans if the team does not implement the resident's ideas or if the patient chooses to decline such intervention(s).</p>	<p>R1.1.1 Interact effectively with health care teams to manage patients' medication therapy</p> <p>R1.1.8 Demonstrate responsibility to patients</p> <p>R3.1.1 Demonstrate personal, interpersonal, and teamwork skills critical for effective leadership</p>	<p>IMCF</p>
<p>Assist in patient's medication reconciliation at admission and discharge (if patient load allows), patient education at discharge, and maintaining accurate patient medication lists for the patients and inpatient service providers.</p>	<p>R1.1.2 Interact effectively with patients, family members, and caregivers</p> <p>R1.2.1 Manage transitions of care effectively</p>	<p>IMCF</p>
<p>Preceptors will model the prioritization of various critical conditions.</p> <p>Residents will devise an approach to investigating which patient(s) requires the most attention at the beginning of their day.</p> <p>The resident will discuss with the preceptor (and update the daily sign out with) the prioritized problem lists and current treatment and recommendations for each patient.</p> <p>Verify orders for 2 chemotherapy regimens (if patient load allows), which will be double-checked by the pharmacist preceptor and an additional pharmacist.</p>	<p>R1.1.4 Analyze and assess information on which to base safe and effective medication therapy</p>	<p>IMCF</p>
<p>One formal presentation on a hematology topic of choice will be formally presented to either the hematology team during the rotation or to the pharmacy staff. The presentation should be between about 15 minutes in duration.</p> <p>The resident will have the opportunity to develop the presentation to an interdisciplinary team that could include MDs, PAs, NPs, pharmacy and medical students, and RNs.</p>	<p>R1.1.5 Design or redesign safe and effective patient-centered therapeutic regimens and monitoring plans (care plans)</p>	<p>CF</p>

Rotation Activities	Objective Number & Description	Teaching Method
<p>The resident will have objectives for his or her presentation which will be evaluated by a case question or open ended questions.</p> <p>The resident can use a case or ask open ended questions to assess the audience's understanding.</p> <p>The resident will evaluate patient's alternative and complementary treatments for ADRs and drug interactions with chemotherapy as the need arises on rotation.</p> <p>Based on patient-specific information gathered (R1.1.4) residents will be able to discuss expected outcomes based on disease state, co-morbid conditions, and individual patient goals. Residents will outline plans for monitoring these outcomes, including timeframes of when different sequelae or effects might be expected.</p> <p>Residents are expected to investigate primary and tertiary literature related to each medication-related problem to determine (a) reasonable course(s) of action for each patient. Based on pharmacokinetic parameters of each medication involved and reported timelines of possible side effects.</p> <p>Residents will present assigned patients to preceptors on a daily basis, incorporating their ideas on evidence-based plans for medication therapy monitoring.</p>		
<p>Write daily progress notes on all or some of the patients, depending on patient load and the resident's comfort level with hematology practice.</p> <p>Understand what interventions or issues are typically documented by hematology pharmacists based on the various audiences that read these notes, and at what point in the patient's care (i.e. transfer, discharge).</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>
SECOND ACUTE CARE ROTATION		

Rotation Activities	Objective Number & Description	Teaching Method
<p>The resident will attend rounds daily and provide recommendations on medication therapy as well as be available in the team room before and after rounds to answer the team's medication related questions.</p> <p>The resident will discuss patients they are following with the preceptor on a daily basis.</p> <p>Residents will be respectful of other team members if they choose to only partially accept the resident's plan or do not accept it at all. Subsequent discussions with the preceptor should occur to discuss follow-up plans if the team does not implement the resident's ideas or if the patient chooses to decline such intervention(s).</p> <p>Assist in patient's medication reconciliation at admission and discharge (if patient load allows), patient education at discharge, and maintaining accurate patient medication lists for the patients and inpatient service providers.</p>	<p>R1.1.1 Interact effectively with health care teams to manage patients' medication therapy</p> <p>R1.1.8 Demonstrate responsibility to patients</p>	<p>IMCF</p>
<p>The preceptor will review with the resident the institution's medication related policies and procedures related to writing chemotherapy and proper abbreviations.</p> <p>Verify orders for 2 chemotherapy regimens (if patient load allows), which will be double-checked by the pharmacist preceptor and an additional pharmacist.</p> <p>The resident will evaluate patient's alternative and complementary treatments for ADRs and drug interactions with chemotherapy as the need arises on rotation.</p> <p>The resident will lead weekly topic discussions on preset hematology topics as well as daily mini topic discussions based on current patients.</p> <p>The preceptor and resident will review admission and discharge medications for patients.</p> <p>The preceptor and resident will review all new therapies and therapy modifications for patients.</p>	<p>R1.1.3 Collect information on which to base safe and effective medication therapy</p>	<p>IMCF</p>
<p>Residents will present their ideas for initiation or alteration of medication therapy plans to the team in an assertive, yet polite, manner and be prepared</p>	<p>R1.1.6 Ensure implementation of therapeutic regimens and</p>	<p>IMCF</p>

Rotation Activities	Objective Number & Description	Teaching Method
<p>to reference pertinent primary and/or tertiary literature supporting their recommendation(s).</p> <p>Residents will be provided appropriate feedback if their recommendations are not succinct and/or provided at the appropriate “teachable moment” in a timely manner during rounds.</p> <p>Residents will follow-up to ensure their recommendations were followed through on as indicated during or after rounds.</p>	<p>monitoring plans (care plans) by taking appropriate follow-up actions</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>Be on time and prepared for rotation activities. Integrates new learning into subsequent performances of task until expectations are met.</p>	<p>R3.2.4 Manages one’s own practice effectively</p>	<p>CF</p>
<p>One formal presentation on an hematology topic of choice will be formally presented to either the hematology team during the rotation or the pharmacy staff. The presentation should be between about 15 minutes in duration.</p> <p>The resident will have the opportunity to develop the presentation to an interdisciplinary team that could include MDs, PAs, NPs, pharmacy and medical students, and RNs.</p> <p>The resident will have objectives for his or her presentation which will be evaluated by a case question or open ended questions.</p> <p>The resident can use a case or ask open ended questions to assess the audience’s understanding.</p>	<p>R4.1.1 When engaged in teaching, select a preceptor role that meets learners’ educational needs</p>	<p>CF</p>

Reading and Preparatory Work:

1. IDSA 2010 Febrile neutropenia guidelines CID 2011;52(4):e56-e93
2. Oncologic emergencies: Diagnosis and Treatment Mayo Clin Proc. 2006;81(6):835-848
3. ASHP Guidelines on Preventing Medication Errors with Antineoplastic Agents. Am J Health-Syst Pharm. 2002;59:1648-1668.

Topics to be reviewed:

1. Oncologic emergencies
2. Neutropenic fever
3. Anti-emetic agents

Typical Schedule:

Typical hours are 7AM until 5:30 PM

Monday: Overview of patients, Patient care rounds

Tuesday: Overview of patients, Patient care rounds, Killer Session

Wednesday: Overview of patients, Patient care rounds

Thursday: Overview of patients, Patient care rounds, topic discussion

Friday: Overview of patients, Patient care rounds, patient presentations

Preceptor Interaction

Daily:	8:30	Pre-rounds with resident
	9:00 – 1:00	Team rounds with resident and team
	2:00 – 3:00	Preceptor patient discussion.

Communication:

- A. Daily scheduled meeting times: Residents to prioritize questions and problems to discuss during scheduled meeting times as listed above.
- B. E-mail: Residents are expected to read e-mails at the beginning, middle and end of each day at a minimum for ongoing communication. This is appropriate for routine, non-urgent questions and problems.
- C. Office extension: Appropriate for urgent questions pertaining to patient care.
- D. Pager: Residents to page preceptor for urgent/emergency situations pertaining to patient care
- E. Personal phone number: Provided to resident at time of learning experience for emergency issues.

Expected progression of resident responsibility on this learning experience:

(Length of time preceptor spends in each of the phases will be customized based upon resident's abilities and timing of the learning experience during the residency training year)

Day 1: Preceptor will review learning activities and expectations with resident.

Week 1: Resident to work up approximately 2-4 of the team's patients and present to preceptor daily. Preceptor to attend and participate in team rounds with resident, modeling pharmacist's role on the health care team.

Week 2: Resident to work up approximately 4-8 of the team's patients and discuss problems with preceptor daily. Preceptor to attend team rounds with resident, coaching the resident to take on more responsibilities as the pharmacist on the team.

Weeks 3-4: Each week the resident is expected to take over the responsibility of working up more of the team's patients, continuing to discuss identified problems with preceptor daily.

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. For all evaluations completed in PharmAcademic, the resident and the preceptor will independently complete the assigned evaluation and save as draft. The resident and the preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident's self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.

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