

## PGY1 – Internal Medicine – Focus on Oncology I Learning Experience

### Preceptors\*

Kirsten Laity, PharmD, BCOP ([kirsten.laity@asante.org](mailto:kirsten.laity@asante.org))

Kendra VanHandel, PharmD ([kendra.vandandel@asante.org](mailto:kendra.vandandel@asante.org))

Shane VanHandel, PharmD ([shane.vanhandel@asante.org](mailto:shane.vanhandel@asante.org))

Randy Bahm, RPh ([randy.bahm@asante.org](mailto:randy.bahm@asante.org))

Rani Scranton, PharmD, ([rani.scranton@asante.org](mailto:rani.scranton@asante.org))

\*Primary preceptors and preceptors will be assigned dependent on pharmacist schedule during rotation

### General Description

The purpose of the oncology rotation is to provide the resident an opportunity to learn and develop pharmacotherapy knowledge and skills related to providing care to patients with cancer. This is a 4-week rotation. The resident will be exposed to and concentrate on drug therapy specific to this population. The clinical pharmacist on the team is responsible for ensuring safe and effective medication use for all patients admitted to the oncology floor at Asante Rogue Regional Medical Center. Routine responsibilities include: review and confirmation of chemotherapy regimens; completion of consults and medication therapy protocols in areas including dosing and monitoring of TPN, kinetics, and warfarin, evaluation of anti-infectives, renal dosing, completion of medication history review follow-ups, IV to PO conversions, addressing formal consults for non-formulary drug requests and providing patient education. The pharmacist also provides drug information and education to healthcare professionals as requested.

### Expectations of the Learner

The pharmacy resident will develop a foundational knowledge base of chemotherapy, and patient-related problems such as neutropenia, pain management, supportive care, and palliative care. The oncology rotation will provide the resident with the opportunity and environment in which to focus their practice on oncologic processes and related pharmacotherapy. While the resident is expected to concentrate on chemotherapies, they will also be expected to assess the entire patient's drug therapy and make recommendations as necessary. The resident will set up a weekly meeting with the preceptor for 30 minutes. These meetings allow time for the preceptor to review rotation activities from the previous week and provide feedback on performance. At the beginning of the rotation the resident will need to choose a specific type of cancer they have an interest in and e-mail the cancer choice to preceptor by the first Friday of the rotation. The resident is to research most common treatments and understand why they are used for the specific cancer, the complications associated with these treatments, emetic potential for specific regimens, risk for TLS and other oncology emergencies, and neutropenia risk.

A 30 min presentation will be completed for the primary preceptor or oncology team (based on availability of staff) the last week of the rotation (this should be scheduled, and a date picked for presentation on the first week of the rotation). The resident should complete ALEC modules on Tumor Lysis Syndrome, Neutropenic Fever and Chemotherapy Induced Nausea and Vomiting.

### Staffing/Meeting Attendance

Rotation Attendance: Required five days per week.

Staffing: Residents are required to notify the primary preceptor/preceptor of any scheduled staffing or requested project days. The primary preceptor reserves the right to shift these days to optimize days working together.

Case Conference or Journal Clubs: The resident may attend any case conference or journal clubs for students.

Pharmacy & Therapeutics Committee: Residents are required to notify the primary preceptor/preceptor in advanced when they are attending a P&T committee meeting. This meeting usually occurs on the last Tuesday once a month.

Absences: Scheduled time off is not allowed when resident is scheduled with the primary preceptor.

Others: As deemed necessary by the Residency Director, residency program, and/or preceptor

### Disease States

Common disease states in which the resident will be expected to gain exposure to through direct patient care experience for common diseases including, but not limited to:

Most common cancers treated in house:

- Lymphomas
- Lung Cancers
- Prostate Cancer
- Testicular Cancer
- Ovarian Cancer
- Multiple Myeloma
- Leukemias

Other topics:

- Chemotherapy Induced Nausea and Vomiting
- Febrile neutropenia
- Tumor Lysis Syndrome (TLS)
- Chemotherapy induced Anemia
- Pain control
- Antimicrobials
- Parenteral nutrition
- Palliative care and hospice

Topic discussions and reading key articles will be used to help develop the resident’s patient care skills for common disease states or acquiring knowledge about diseases seen infrequently on the service.

The resident’s achievement of the goals of the residency is determined through assessment of his/her ability to perform the associated objectives. The table below demonstrates the relationship between the activities the resident will perform on the learning experience and the goals/objectives assigned to the learning experience.

### GOALS and OBJECTIVES

Competency Area R1: Patient Care		
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.		
Objective Number	Objective	Activities
1.1.1	(Applying) Interact effectively with health care teams to	<ul style="list-style-type: none"> <li>• Actively works to identify the potential for significant medication-related problems and takes initiative to solve the problem.</li> </ul>

	manage patients' medication therapy.	<ul style="list-style-type: none"> <li>• Provide recommendations, answer drug information questions, and other pharmacy consults in a timely manner to all healthcare professionals.</li> <li>• Communicate with nurses and phlebotomists to ensure timely and accurate medication administration and lab collection.</li> <li>• Contact prescribing physician to resolve medication related issues via face to face interaction, paging the provider via Doc Halo, telephone conversation, written communication for non-critical medication issues via progress notes and sticky notes.</li> <li>• Actively pursues and follow-up with identified issues until satisfactory resolution is obtained.</li> </ul>
1.1.2	(Applying) Interact effectively with patients, family members, and caregivers.	<ul style="list-style-type: none"> <li>• Utilize AIDET (acknowledge, introduce, duration, explanation and thank you) when communicating with patients, family members and caregivers to build rapport.</li> <li>• Perform any needed discharge counseling for patients, their families, and/or care-givers, including but not limited to: oral chemotherapy regimens, enoxaparin, pneumonia, warfarin, U-500. Perform medication history follow-up on assigned patients through patients, family members and/or caregiver interview.</li> <li>• Assess information and skill comprehension throughout counseling session and adjust instruction to appropriately accommodate the patients' or caregivers' responses.</li> <li>• Answers all appropriate medication questions and defers specific questions to other healthcare providers that may be better suited to give the best answer (ie: discharge questions).</li> </ul>
1.1.3 (Taught- not evaluated)	(Analyzing) Collect information on which to base safe and effective medication therapy.	<ul style="list-style-type: none"> <li>• Accurately obtains home medication list and assess appropriateness based on indications. Evaluate the complete medication therapy regimen and identify inappropriate treatments.</li> <li>• Assess for the presence or potential for adverse drug events, or significant drug interactions.</li> <li>• Identify problems arising from the financial impact of medication therapy on the patient.</li> <li>• Identify lack of patient (or caregiver) understanding of his/her medication therapy and adherence to medication regimen.</li> <li>• If medication-use problems are found, chart documentation exhibits the following characteristics: written in time to be useful; follows the health system's policies and procedures, including that entries are signed, dated, timed, legible, and concise.</li> </ul>

		<ul style="list-style-type: none"> <li>Utilize most reliable sources of information including CareEverywhere, face-to-face interview, and others. Clarifies information as needed and does not collect extraneous information.</li> </ul>
1.1.4	<p>(Analyzing) Analyze and assess information on which to base safe and effective medication therapy.</p>	<ul style="list-style-type: none"> <li>For patients receiving chemotherapy: review appropriateness of therapy/specific antineoplastic regimen selected, conduct dosage calculations and recommend dose adjustments based on patient specific parameters, identify appropriate laboratory tests and clinical assessments used to monitor for drug toxicity and tumor response, monitor for adverse drug reactions, evaluate emetic potential of specific chemotherapy regimens and assess proper interventions to minimize chemotherapy induced nausea and vomiting, recognize patients admitted for neutropenic fever and assess antimicrobial therapy to ensure adequate coverage based on patient risk factors</li> <li>For patients prescribed Total Parenteral Nutrition Therapy: Complete TPN monitoring, evaluate the patient and provide appropriate recommendations for TPN, follow patients daily and changes are made according to the needs of the patient.</li> <li>Perform pharmacokinetic assessments whenever serum drug levels are obtained.</li> <li>Makes adjustments to therapy based on a complete evaluation. Documents levels, assessment, and dose modifications in the patient’s medical record.</li> <li>Perform anticoagulation assessments on all patients actively receiving full treatment doses of any anticoagulant. (Lovenox, warfarin, argatroban, DOACs, heparin, etc).</li> <li>Assess patients for heparin induced thrombocytopenia risk in patients with drastic reduction in platelets actively or recently receiving heparin or LMWH. Perform assessments of antimicrobial therapy.</li> <li>Participate in pharmacy initiatives, such as I.V. to oral switch, automatic renal dosing program, and antimicrobial stewardship.</li> <li>Evaluate patients pain needs and make recommendations for optimal pain control in both end-of- life and acute.</li> </ul>
1.1.5	<p>(Creating) Design or redesign safe and effective patient-centered therapeutic regimens and monitoring plans (care plans).</p>	<ul style="list-style-type: none"> <li>Initiate, monitor, and adjust dosing regimen to achieve and maintain target levels for vancomycin, aminoglycosides, phenytoin, and other medications per physician consults.</li> <li>Determine when levels or other appropriate labs need to be obtained to assess therapeutic efficacy and prevent toxicity.</li> </ul>

		<ul style="list-style-type: none"> <li>• Present recommendation to preceptor if necessary and contact prescribing/primary physician with recommended changes to medications or monitoring plans.</li> </ul>
1.1.6	(Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) by taking appropriate follow-up actions.	<ul style="list-style-type: none"> <li>• When appropriate, initiate the patient centered evidence-based therapeutic regimen and monitoring plan for patients with, but not limited to, neutropenic fever, TPN, pharmacokinetic dosing and monitoring, antimicrobial therapy that requires daily review.</li> <li>• Participate in pharmacy initiatives, such as I.V. to oral switch, automatic renal dosing program, and antimicrobial stewardship.</li> <li>• Perform pain assessments and assist with transition to hospice and palliative care.</li> <li>• Activity complies with the health system's policies and procedures.</li> <li>• Medication therapy corresponds with the recommended regimen, time and is clear and concise.</li> <li>• Activity complies with Asante health system's policies and procedures.</li> <li>• Tests correspond with the recommended monitoring plan and are clear and concise.</li> </ul>
1.1.7	(Applying) Document direct patient care activities appropriately in the medical record or where appropriate.	<ul style="list-style-type: none"> <li>• Understanding the significance of documentation. Selects appropriate direct patient-care activities for documentation in electronic medical record for specific patient conditions such as new admission for chemotherapy, patients receiving treatment for neutropenic fever, patients receiving total parenteral nutrition solutions, all pharmacokinetic assessments whenever serum drug levels are obtained or adjustments to therapy are indicated, document levels, assessment, and dose modifications in the patient's medical record, antimicrobial stewardship daily reviews, warfarin and anticoagulation monitoring, pain consults, I.V. to oral switch, automatic renal dosing protocol.</li> <li>• Activity selected for documentation is one that will effectively contribute to best possible patient care outcomes. Has no documentation omissions.</li> <li>• Chart documentation exhibits the following characteristics: warrants documentation, written in time to be useful, follows Asante's health system's policies and procedures, content includes pertinent subjective and objective data.</li> <li>• Assessment reflects accurate interpretation of the objective and subjective data.</li> <li>• Recommended plans are clearly presented and relate to the conclusion.</li> </ul>

1.1.8	(Applying) Demonstrate responsibility to patients.	<ul style="list-style-type: none"> <li>• Daily activities consistently show a priority placed on the delivery of patient centered care (i.e., arranges work activities so that priority needs of patients are met first and subsequently all other pharmacotherapy acuity issues are addressed, or communicated appropriately to the next shift prior to leaving for the day; chemotherapy is triaged appropriately).</li> <li>• Ensure that accurate and timely medication specific information regarding a specific patient reaches those who need it at the appropriate time (i.e., patient education is completed and timely; provides timely drug-information responses to other healthcare professionals; chemotherapy regimens are timed appropriately).</li> <li>• Reports medication-related problems (e.g., ADRs, medication errors, drug interactions, infusion reactions, extravasation)</li> </ul>
<b>GOAL R1.3 Prepare, dispense, and manage medications to support safe and effective drug therapy for patients.</b>		
Objective Number	Objective	Activities
R1.3.2	(Applying) Manage aspects of the medication-use process related to formulary management.	<ul style="list-style-type: none"> <li>• Follows appropriate procedures regarding exceptions to the formulary, if applicable, in compliance with policy.</li> <li>• Ensures non-formulary medications are dispensed, administered, and monitored in a manner that ensures patient safety.</li> </ul>
<b>Competency Area R3: Leadership and Management</b>		
<b>GOAL R3.2 Demonstrate management skills.</b>		
Objective Number	Objective	Activities
3.2.4	(Applying) Manages one's own practice effectively.	<ul style="list-style-type: none"> <li>• Accurately assesses successes and areas for improvement (e.g., staffing projects, teaching) in managing one's own practice.</li> <li>• Makes accurate, criteria-based assessments of one's own ability to perform practice tasks.</li> <li>• Regularly integrates new learning into subsequent performances of a task until expectations are met. Routinely seeks applicable new learning opportunities when performance does not meet expectations.</li> <li>• Demonstrates effective workload management and time management skills.</li> <li>• Assumes responsibility for personal work quality and improvement.</li> <li>• Is well prepared to fulfill responsibilities (e.g., patient care, project, management, meetings).</li> </ul>

		<ul style="list-style-type: none"> <li>• Demonstrates enthusiasm, self-motivation, and “can-do” approach. Works collaboratively within the organization's political and decision-making structure.</li> <li>• Demonstrates pride in, and commitment to, the profession through appearance, personal conduct, planning to pursue board certification, and pharmacy association membership activities.</li> </ul>
<b>Competency Area R4: Teaching, Education, Dissemination of Knowledge</b>		
<b>GOAL R4.1 Provide effective medication and practice-related education to patients, caregivers, health care professionals, students, and the public.</b>		
Objective Number	Objective	Activities
4.1.1	(Applying) Design effective educational activities.	<ul style="list-style-type: none"> <li>• Accurately defines learning needs (e.g., level, such as healthcare professional vs patient, and their learning gaps) of audience (individuals or groups).</li> <li>• Defines educational objectives that are specific, measurable, at a relevant learning level (e.g., applying, creating, evaluating), and that address the audiences’ defined learning needs.</li> <li>• Plans use of teaching strategies that match learner needs, including active learning (e.g., patient cases, polling).</li> <li>• Selects content that is relevant, thorough, evidence-based (using primary literature where appropriate), and timely, and reflects best practices.</li> <li>• Includes accurate citations, relevant references, and adheres to applicable copyright laws.</li> </ul>
4.1.2	(Applying) Use effective presentation and teaching skills to deliver education. Criteria:	<ul style="list-style-type: none"> <li>• Present a 30-minute oncology topic (preferably with CE credit).</li> <li>• Demonstrates rapport with learners.</li> <li>• Captures and maintains learner/audience interest throughout the presentation.</li> <li>• Implements planned teaching strategies effectively.</li> <li>• Effectively facilitates audience participation, active learning, and engagement in various settings (e.g., small or large group, distance learning).</li> <li>• Presents at appropriate rate and volume and without distracting speaker habits (e.g., excessive “ah’s” and “um’s”).</li> <li>• Body language, movement, and expressions enhance presentations.</li> <li>• Summarizes important points at appropriate times throughout presentations.</li> <li>• Transitions smoothly between concepts. Effectively uses audio-visuals and handouts to support learning activities.</li> </ul>

## Communication

Daily as necessary with preceptor

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.

Halo: Appropriate for urgent questions pertaining to patient care

Personal phone number: Provided to resident at time of learning experience for emergency issues

## Expected Progression of resident responsibility on this learning experience

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

Week 1:

- Resident to shadow pharmacist on initial chemotherapy work-ups to get a good understanding of the process and best references for evaluation of chemotherapy.
- Resident and preceptor should follow up with patients receiving multi-day regimen chemotherapy to ensure chemotherapy is running smoothly and patient is tolerating the chemo well.
- On days when there are minimal or no new chemotherapy work-ups to do, the resident should work up at least ½ of the patients admitted with cancer associated issues (i.e: Neutropenic fever, Hypercalcemia, Tumor Lysis Syndrome, mucositis, cancer associated pain)
- Topic Discussion #1
- Select topic for presentation

Week 2-4:

- Once resident has evaluated at least 2 chemotherapy workups, the resident should complete all initial chemotherapy work-ups for all new chemotherapy patients. If the resident is licensed, the preceptor will complete the double check prior to dispensing any chemotherapy.
- Residents should follow up with patients receiving multi-day regimen chemotherapy to ensure chemotherapy is running smoothly and patient is tolerating the chemo well.
- Each week the resident is expected to take over more of the teams' responsibility of cancer associated admissions. (i.e: Neutropenic fever, Hypercalcemia, Tumor Lysis Syndrome, mucositis, cancer associated pain)
- The resident should put as much effort as possible to work-up and evaluate as many chemotherapy regimens as possible. The more exposure to chemotherapy you get the better you will understand the process and the risks associated with chemotherapy.
- In rare times RRMC will have minimal to no in-patient chemotherapy. If this occurs during the residents' rotation (no new chemo by week 3), the resident should request sample chemotherapy orders to work up from the primary preceptor.
- By Week 4 – complete 30-minute topic presentation to staff.



### Evaluation Strategy

The preceptor will provide both written and verbal formative feedback during the course of the rotation. Additional customized assessments and/or snapshots may be conducted at the discretion of the preceptor or directive of the RPD to assess the resident's skill in a particular area.

Pharm Academic will be used for documentation of scheduled evaluations (both formative and summative per the chart below). The resident and preceptor will independently complete the evaluations. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and resident self-assessment skills. Following discussion, preceptor will provide documentation of the discussion and correlation of resident self-assessment on the preceptor evaluation prior to submitting evaluation in Pharm Academic. Evaluations will be completed no later than due date specified below.

What	Who	When
Summative	Preceptor	End of week 4
Preceptor/Learning Experience Evaluation	Resident	End of week 4

### Content of the evaluation:

The preceptor is expected to grade the resident on the following scale:

- NI (Needs Improvement): Resident needs a more exposure and additional formal evaluation on the topic, likely in two separate rotations. Will be accompanied by actionable feedback from the preceptor. Example: The resident's therapeutic plans are not appropriately evidence based; more guideline or primary literature consultation is recommended to improve the recommendations for patients with TLS.
- SP (Satisfactory Progress): Resident is doing what they need to be doing, considering the place they are in the program, but the preceptor does not yet feel that they have achieved the goal. Will be accompanied by actionable feedback from the preceptor. Example: The resident's analysis of the patient chemotherapy regimen is insufficient; the resident does not actively question the presence of each order to determine its appropriateness.
- ACH (Achieved): Resident is doing what would be expected of a resident at or near the end of his or her program or comparable to a pharmacist with a year of time spent working. Does not mean that the resident cannot improve, but it means that the resident would not likely benefit much from further additional formal evaluation.

### Timing of the Evaluation

On the last day of the learning experience, and no later than 7 days after the end of the rotation, a member of the preceptor team will be expected to discuss the evaluation – with a copy of the evaluation in hand – of the learning experience with the resident to help clarify any potential misunderstandings and to ensure that residents get the most out of the feedback provided. Preceptor and/or resident are to document in the comment box at the end of evaluation, a statement that indicates a discussion has been taken place. For example: “discussed with preceptor in person.”