

PGY1 Pharmacy Residency

Rotation Name: Cardiology, Ambulatory Care I
Educational Site: University of Utah Health, Cardiovascular Center
Status: Active
Required: No

1) General Description

Preceptors:
Adam Smith, PharmD, BCCP

Rotation Duration: 4 weeks

Rotation Description:

The resident will collaborate to manage patients within the cardiovascular center and will primarily be working with the heart failure and general cardiology teams. The resident will work up selected patients, meet with them face-to-face (or via phone/telehealth), identify and resolve problems, provide recommendations to the multidisciplinary team, and take appropriate follow-up actions. The resident may also be responsible for managing patients via collaborative practice agreement. The resident will have extensive one-on-one interaction with patients, providers, and ancillary staff. They will also have the opportunity to attend cardiology grand rounds, cardiology clinical conferences, and view diagnostic and/or interventional studies related to cardiology.

Site Description:

The University of Utah Health (UUH) Cardiovascular Center provides comprehensive cardiac care with the latest innovations and clinical therapies. The clinic is composed of general, interventional, and congenital cardiology, heart failure/transplant, electrophysiology, cardiothoracic surgery, and vascular surgery. The multidisciplinary team includes attending cardiologists and subspecialists, cardiology fellows, nurse practitioners, physician assistants, nurses, a pharmacy technician, medical assistants, and study coordinators.

Disease States:

The clinic provides care to patients with a wide variety of cardiovascular related disease states. Most patients will have multiple comorbidities. Common disease states include (but are not limited to): dyslipidemia, hypertension, diabetes, coronary artery disease, vascular disease, heart failure, arrhythmias, valvular disease, thromboembolic disease, and pulmonary hypertension.

Role of the Pharmacist:

The clinical pharmacist provides comprehensive pharmaceutical care including: patient and provider education, therapy assessment and recommendations, drug information, management of patients via collaborative practice agreement, and assistance with medication access.

2) Expectations of Learners

Expectations of the Resident:

The resident will consistently demonstrate increasing levels of ownership, and by the end of the rotation should be able to show progress towards independence. In addition to working towards the role of the pharmacist (see description above), the resident is expected to supplement knowledge gaps by independently researching topics through primary literature or guidelines. Other expectations include being on time and prepared for clinic, competing assignments as

expected, and exhibiting professional behavior (UUH PROMISE standards, dress code, and punctuality). The resident should be flexible and prepared to engage in topic discussions set by the preceptor.

Pre-rotation Preparation:

The resident will email the preceptor two weeks in advance to discuss any rotation conflicts and rotation goals. The preceptor will assign selected readings to be completed prior to the rotation and discuss any variances in the rotation schedule.

Readings and Preparatory Work:

Readings will include guidelines, landmark clinical trials, recent literature that may impact patient care, and relevant material from ACCP's board certification products. Reading assignments and discussions may be adjusted based on patient, provider, and/or preceptor needs.

Prior to Rotation:

- ACC/AHA/HFSA Guideline for the Management of Heart Failure and Focused Update
- ACC Expert Consensus Decision Pathway for Optimization of Heart Failure Treatment
- ACC/AHA Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease
- ACC/AHA Guideline Focused Update on Duration of Dual Antiplatelet Therapy in Patients With Coronary Artery Disease

Possible Readings During the Rotation:

- AHA/ACC/NLA Guideline on the Management of Blood Cholesterol
- ACC/AHA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults
- AHA/ACC/HRS Guideline for the Management of Patients With Atrial Fibrillation and Focused Update
- ACC Expert Consensus Decision Pathway for Anticoagulant and Antiplatelet Therapy in Patients with AF or VTE Undergoing PCI or with ASCVD
- AHA/ACC Management of Patients With Valvular Heart Disease and Focused Update
- AHA/ACC Guideline for the Diagnosis and Treatment of Patients With Hypertrophic Cardiomyopathy
- Clinical Trials:
 - Heart failure – V-HeFT, V-HeFT II, A-HeFT, CONSENSUS, SOLVD, CHARM (Added, Alternative), ELITE II, ATLAS Study, HEAAL, U.S. Carvedilol Trials, COPERNICUS, MERIT-HF, COMET, CIBIS II, RALES, EPHESUS, EMPHASIS-HF, TOPCAT, DIG, PARADIGM-HF, PARAGON-HF, SHIFT, DAPA-HF, EMPORER-Reduced, EMPORER-Preserved, CORONA, GISSI-HF
 - Other – ASCEND, ASPREE, ARRIVE, SPRINT, FOURIER, ODYSSEY OUTCOMES, HOPE, EUROPA, PEACE, DAPT, PEGASYS-TIMI 54, WOEST, ISAR-TRIPLE, PIONEER AF-PCI, RE-DUAL PCI, AUGUSTUS, AFIRE

Project or Presentation Description:

In-service Presentation or Topic Discussion: By the end of the second week of rotation, the resident will select a pertinent topic to present to the preceptor, providers, staff, and/or other learners. The format and delivery of the presentation will be decided by the resident in order to convey the information in an effective manner. The resident will provide a draft of the presentation and/or handout at least three clinic days prior to the in-service date. The in-service will usually take place during the last two weeks of rotation.

Part of the expectation for this assignment is for the resident to gain experience in project development with little guidance from the preceptor. This will help the resident gain experience in performing these activities as they move to being an independent practitioner.

Typical Daily, Weekly, and Monthly Activities:

Daily: Patient selection, work-up, review with preceptor (if needed), patient interviews, collaboration with team, and follow-up actions (if needed)

Weekly: Topic discussions with preceptor, assessment and/or management of assigned lipid patients, attend cardiology grand rounds

Monthly: In-service, resident-led topic discussion, attend meetings with preceptor as needed

Tentative Schedule:

- Monday – General cardiology
- Tuesday – Heart failure
- Wednesday – Heart failure
- Thursday – Lipid clinic, follow-up (HCM, sarcoid, HF, or general cardiology if time permits)
- Friday – General cardiology

Expected Progression:**Day 1:**

- Preceptor will orient resident to the clinic, health care professionals, and workflow. Preceptor will review learning activities and expectations with resident.
- Resident should have reviewed articles/guidelines that were provided by the preceptor prior to rotation.
- Resident should come ready to discuss resident progress to date, areas of excellence and areas of improvement needed, and goals for rotation.
- Resident is expected to be punctual, professional, prioritize daily activities with a focus on exceptional patient care, and have willingness to go above and beyond for the team.

Week 1:

- Resident will staff the clinic with the pharmacist during the first two weeks and progress towards functioning independently during this rotation.
- Resident will work up all assigned patients in detail, especially focusing on cardiology issues.
- Resident will present all patients to the preceptor for the first two weeks of rotation.
- By day four, resident will be interviewing patients independently.
 - Interactions with patients and family members will be professional and efficient, balancing need for important information with time management/redirection skills.
- Resident should be reviewing/interviewing at least three patients per day towards the end of the first week.
- Patient interactions should include medication reconciliation, identifying and resolving patient/medication issues, assessment of medication therapy for cardiology and other disease states, and providing recommendations/plans to optimize care.
- Resident is expected to use appropriate resources to fill knowledge gaps and provide evidence based recommendations.
- Demonstrate knowledge of current immunization practices and recommendations.
- Resident will document all patient interactions in the chart.
 - Goal will be for resident's assessment and plan to contain an appropriate heading/context, supported recommendations, explanations for non-standard therapy, and reasons why a patient is not on recommended therapy.
- Resident is expected to engage with the cardiology teams such that they know the resident's name by Friday.

Week 2:

- Resident should be reviewing/interviewing at least four patients per day towards the end of the second week.
- Resident will communicate with pharmacies, health care facilities, and other providers when needed with little prompting from the preceptor.
- Resident will catch common interventions and document important notes on more than half of the selected patients.
 - Important notes include explanations for non-standard therapy and reasons why a patient is not on recommended therapy.
- Resident will demonstrate ability to incorporate prior feedback and increase ability to recognize medication problems from the prior week.

- Resident will have their in-service and topic discussion selected by the end of the week.
- If referred a patient for hypertension, dyslipidemia, or smoking cessation, the resident, with guidance from the preceptor, will function within the scope of the collaborative drug therapy management protocols approved by the Pharmacy and Therapeutics Committee.

Week 3:

- Resident should be selecting which patients to see on own starting this week.
- Resident should be reviewing/interviewing at least five patients per day towards the end of the third week and continuing for the rest of the rotation.
- Resident will catch common interventions and document important notes on most patients.
 - Important notes include explanations for non-standard therapy and reasons why a patient is not on recommended therapy.
- Resident will demonstrate ability to incorporate prior feedback and increase ability to recognize medication problems from the prior week.
- Resident will start spending some time in the provider room without the preceptor by the beginning of the week.
- Resident will respond to any drug information requests from the providers with some help from the preceptor if needed.
 - The team should start asking resident therapy questions independent of the preceptor.
- Notes should be clear, concise, and contain minimal errors.
- If referred a patient for hypertension, dyslipidemia, or smoking cessation, the resident will independently function within the scope of the collaborative drug therapy management protocols approved by the Pharmacy and Therapeutics Committee.

Week 4:

- Resident will catch common interventions and document important notes on almost all patients.
 - Important notes include explanations for non-standard therapy and reasons why a patient is not on recommended therapy.
- Resident should be able to use knowledge of the literature, risk stratification techniques, and patient factors to provide recommendations for some complex patients.
- Resident will demonstrate ability to incorporate prior feedback and increase ability to recognize medication problems from the prior week.
- Resident will be spending most of the time in the provider room without the preceptor by the beginning of the week and be fully engaged with the team.
- Resident will document independently with minimal errors by the final week.
- Resident will respond to any drug information requests from the providers with little help from the preceptor if needed.
- Resident will be proactive and anticipate needs of the patients and providers.
- Resident will provide draft of in-service at least three days prior to presentation date.
- Resident will present or complete final projects.

Preceptor Interaction (daily):

0730-1700 Preceptor available during all times of daily activities if needed. Amount of time spent directly with preceptor will depend on resident progression and scheduled discussions.

Communication:

- Best times to coordinate daily activities will be from 0730-0830 and at the end of the day.
- Resident will be expected to monitor e-mail, Epic messages, and Microsoft Teams throughout the day.
- Preceptor personal phone number will be provided to the resident for urgent issues. Preferred method of communication with preceptor is in-person, Microsoft Teams, or e-mail.

Evaluation Strategy:

The resident will be provided with verbal feedback on a frequent (at least every other day, possibly several times daily) basis. Feedback 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 meet to 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	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

3) Rotation Goals, Objectives, Teaching Methods and Activities

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.

- R1.1.1: (Applying) Interact effectively with health care teams to manage patients' medication therapy.
- R1.1.2: (Applying) Interact effectively with patients, family members, and caregivers.
- R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy.
- R1.1.5: (Creating) Design or redesign safe and effective patient-centered therapeutic regimens and monitoring plans (care plans).
- R1.1.7: (Applying) Document direct patient care activities appropriately in the medical record or where appropriate.

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

- R1.2.1: (Applying) Manage transitions of care effectively.

R3.1: Demonstrate leadership skills.

- R3.1.2: (Applying) Apply a process of ongoing self-evaluation and personal performance improvement.

R4.1: Provide effective medication and practice-related education to patients, caregivers, health care professionals, students, and the public (individuals and groups).

- R4.1.2: (Applying) Use effective presentation and teaching skills to deliver education.

Achievement of the goals of the residency is determined through assessment of the resident's 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.

Teaching methods used by preceptors are listed beneath each objective:

- DI = direct instruction
- M = Modeling
- C = Coaching
- F = Facilitating

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

Objective	Rotation Activity
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<p>R1.1.1 (Applying) Interact effectively with health care teams to manage patients' medication therapy. [M, C, F]</p>	<p>The resident will:</p> <ul style="list-style-type: none"> • Demonstrate ability to effectively present patients to the team. • Use appropriate resources to effectively respond to questions from the team.
<p>R1.1.2 (Applying) Interact effectively with patients, family members, and caregivers. [DI, M, C, F]</p>	<p>The resident will:</p> <ul style="list-style-type: none"> • Demonstrate effective and efficient interview skills when speaking with patients to determine issues with current medication therapy. • Show initiative in communicating (face-to-face, by phone, or written) with patients, providers, health care facilities, and pharmacies as needed to facilitate therapeutic plans.
<p>R1.1.3 (Analyzing) Collect information on which to base safe and effective medication therapy. [DI, M, C, F]</p>	<p>The resident will:</p> <ul style="list-style-type: none"> • Thoroughly analyze the electronic health record of each patient to find important details related to their cardiac history. • Interpret information gained from patient interviews and incorporate it into their overall patient workup.
<p>R1.1.5 (Creating) Design or redesign safe and effective patient-centered therapeutic regimens and monitoring plans (care plans). [DI, M, C, F]</p>	<p>The resident will:</p> <ul style="list-style-type: none"> • Formulate appropriate therapeutic plans for patients seen in clinic and as needed in response to questions by the patients or providers. • Write clear and concise chart notes that contain an appropriate heading/context, supported recommendations, explanations for non-standard therapy, and reasons why a patient is not on recommended therapy.
<p>R1.1.7 (Applying) Document direct patient care activities appropriately in the medical record or where appropriate. [DI, M, C, F]</p>	<p>The resident will:</p> <ul style="list-style-type: none"> • Write clear and concise chart notes that contain an appropriate heading/context, supported recommendations, explanations for non-standard therapy, and reasons why a patient is not on recommended therapy. • Demonstrate consistent accuracy in updating the appropriate areas of the patient chart.
<p>R1.2.1 (Applying) Manage transitions of care effectively. [M, C, F]</p>	<p>The resident will:</p> <ul style="list-style-type: none"> • Demonstrate ability to identify patients with a recent transition of care and make those patients a priority. • Show initiative in communicating (face-to-face, by phone, or written) with patients, providers, health care facilities, and pharmacies as needed to facilitate therapeutic plans.
<p>R3.1.2 (Applying) Apply a process of ongoing self-evaluation and personal performance improvement. [C, F]</p>	<p>The resident will:</p> <ul style="list-style-type: none"> • Interpret baseline cardiology knowledge and ambulatory care experience prior to beginning rotation and communicate gaps to the preceptor. • Apply feedback to future patient and provider encounters.
<p>R4.1.2 (Applying) Use effective presentation and teaching skills to deliver education. [C, F]</p>	<p>The resident will:</p> <ul style="list-style-type: none"> • Demonstrate ability to effectively prepare and present an in-service or topic discussion to health care professionals.