PGY1 – Internal Medicine – Focus on Cardiology Learning Experience

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

General Description
During this 4-week rotation the resident will be assigned to work with a pharmacist on the Asante Rogue Regional Medical Center cardiology unit to monitor patients' drug therapies in the inpatient setting. The shift hours are 0700 to 1730. The clinical pharmacist on the cardiology team is responsible for ensuring safe and effective medication use for all patients admitted to the cardiac care floor. Routine responsibilities include: review of heart failure medication 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 Resident
It is expected that the resident will focus on learning cardiac related disease states encountered and then apply that knowledge to the care of the patients on service. The resident will be exposed to opportunities to teach students, patients, and other health care providers. The resident will be participating in and be responsible for the same activities that are expected of the clinical pharmacist. Residents are also 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. Residents are also required to be signed into Halo and respond to messages.

The resident should become more familiar with medication therapy for cardiac related indications via direct patient care and/or topic discussions for the disease states listed below.

- Heart failure
- Acute MI
- Angina
- Unstable angina
- Hypertension
- Hyperlipidemia
- Arrhythmias
- Patient specific topics
- Endocarditis
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

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

<table>
<thead>
<tr>
<th>Competency Area R1: Patient Care</th>
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<tbody>
<tr>
<td>GOAL R1.1 In collaboration with the health care team, provide safe and effective patient care to a diverse range of patients…following a consistent patient care process.</td>
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<tr>
<td>(Applying) Interact effectively with health care teams to manage patients’ medication therapy.</td>
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<tr>
<td>Activities:</td>
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<tr>
<td>• Interactions with healthcare team members are cooperative, collaborative, communicative, and respectful.</td>
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<td>• Appropriately contact providers when necessary to make therapy recommendations, utilizing Doc Halo, phone, and face to face conversations. Reinforce recommendations by citing primary literature when appropriate.</td>
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<td>• Demonstrates skills in negotiation, conflict management, and consensus building, with emphasis on patient advocacy.</td>
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<td>• Work with physicians and nurses to resolve issues found when reconciling patients’ medications prescribed on admission.</td>
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<td>• Collaborate with nursing staff to address medication distribution and administration issues.</td>
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<tr>
<td>R1.1.1</td>
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<tr>
<td>(Applying) Interact effectively with patients, family members, and caregivers.</td>
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<tr>
<td>Activities:</td>
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<tr>
<td>• Interactions with patients, family members, and their caregivers are respectful and collaborative.</td>
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<td>• Demonstrates cultural competence and awareness, showing respect to patients and staff of other backgrounds</td>
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<tr>
<td>R1.1.2</td>
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- Use effective verbal and written communication to perform needed discharge counseling for patients, families, and/or care-givers for patients on warfarin, Sotalol/Dofetilide, and those that have diagnosis of pneumonia or heart failure.
- Interact with patients to obtain medication histories and confirm medications for appropriate reconciliation.
- Conducts follow up visits for education in relation to daily anticoagulation monitoring, antibiotic monitoring, glucose monitoring, renal dosing, or other pharmacy services provided.

(Applying) Collect information on which to base safe and effective medication therapy.

**Activities:**
- Collection/organization methods are efficient and effective to provide the medication monitoring, consult, or service being followed for assigned patients.
- Demonstrate ability to find relevant information about medication therapy within the electronic medical record. Info should be collected from progress notes, HPI, PMH, operative notes, procedural notes, EKG view, Imaging Reports, EPIC anticoagulation monitoring reports, EPIC antimicrobial monitoring reports, EPIC glucose monitoring reports, etc.
- Sources of information are the most reliable available. For medication history or reconciliation this may be outpatient physician records including Care Everywhere, patient face-to-face visits, outpatient pharmacy medication list, or RX dispense report.
- Displays understanding of limitations of information in health records. Aware of possible barriers to assessing patient medication records, and how to circumvent (i.e., VA hospital system).

(Analyzing) Analyze and assess information on which to base safe and effective medication therapy.

**Activities:**
- Review medications prescribed to assigned patients including those used to treat cardiac related illness.
- Analyze appropriateness of medication treatment in relation to current guidelines.
- Consider patient specific factors such as health literacy and language when providing medication education. Using laymen terminology and interpreter as needed.
- Consider patient access to medications that may be recommended – working with discharge planning when appropriate.
- Through comprehensive review, identifies all medication therapy problems and areas for improvement for assigned patients.
- When performing anticoagulation assessment, determines if patients are candidates for bridging therapy.

| R1.1.3 | 
| R1.1.4 |
• Assesses indication, dose, route, durations for antimicrobial therapy and recommends changes for suboptimal therapy (dose, dosage form, duration, streamline, discontinuation).
• Assesses medications for renal dosing based on correct calculations and parameters.
• Assesses patients’ ability to switch from IV to PO based on appropriate parameters, taking into consideration multiple factors including clinical condition and diagnosis.
• Determines if there are duplications of anticoagulation when not indicated based on guideline application.
• Assesses for the need for anticoagulation when no anticoagulation is currently prescribed based on diagnosis, clinical condition, and guidelines.
• When assessing warfarin considers significant drug-drug, drug-disease, drug-nutrient, or potential for such interactions.
• Evaluations therapy for adverse drug or device-related events or potential for such events.
• When monitoring Dofetilide or Sotalol consideration for electrolytes, renal function, QTc, and QTc prolonging agents.
• Assesses the correct laboratory parameters for assigned patients required for renal protocol, anti-infective review, anticoagulant monitoring, and glucose monitoring. This includes performing profile review as well as addressing disease related laboratory monitoring (e.g. renal function, electrolytes, urine output, etc.)
• For discharge reconciliation, as currently provided for HF patients, ensure proper medications ordered including those classes of meds indicated and without contraindicated meds in relation to disease state.

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

Activities:
• Develops care plans that are evidence-based, measurable, have achievable therapeutic goals and include consideration of: The goals of other inter-professional team members and the patient's disease state(s) (i.e: CHF, Atrial Fibrillation, Endocarditis, Cellulitis, etc.), medication-specific information. (Anti-Arrhythmics, etc); ethical issues involved in the patient's care. (consideration of duration & frequency of therapy, ease of obtaining medication, etc.); quality-of-life issues specific to the patient.
• Designs/redesigns regimens that are appropriate for the disease states being treated and reflect: the therapeutic goals established for the patient; the patient's and caregiver's specific needs; and, take into consideration: best evidence practices (clinical guidelines); pharmacoeconomic components (patient, medical, and systems resources).
• Addresses wellness promotion and lifestyle modification. Utilize counseling opportunities to discuss non-pharmacological ways of advocating for patient health and wellness.
• Designs/redesigns monitoring plans that: effectively evaluate achievement of therapeutic goals; ensure adequate, appropriate, and timely follow-up to ensure patients are cared for.
appropriately, for example appropriately scheduling all needed laboratory monitoring for vancomycin, aminoglycosides, and warfarin.

- When applicable, reflects preferences and needs of the patient by engaging in appropriate discussion with patient and/or family/caregiver.
- Recommended medication changes to be discussed and coordinated with patient. Education for Warfarin is to be completed or offered to all patients receiving warfarin therapy.

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

**Activities:**

- Effectively recommends or communicates patients’ regimens and associated monitoring plans to relevant members of the healthcare team.
- Recommendation is persuasive.
- Provides recommendation via Doc Halo, phone call, or face to face.
- If patient refuses treatment, pharmacist exhibits responsible professional behavior. Pharmacist to document & communicate result of recommendation appropriately. Creates an atmosphere of collaboration.
- Communication is assertive not aggressive. Resident to develop confidence when making recommendations.
- Where the patient has been directly involved in the design of the plans, communication reflects previous collaboration appropriately.
- Ensures recommended plan is implemented effectively for the patient, including ensuring that the:
  - Therapy corresponds with the recommended regimen. Appropriate literature cited when applicable.
  - Clinical practice guidelines considered appropriate for most current information. Regimen is initiated at the appropriate time.
  - If resident does not have ability or pharmacist licensure then they are to insure orders input by preceptor.
  - Medication orders are clear and concise. Start/stop dates entered appropriately.
  - Activity complies with the health system's policies and procedures.
  - Tests correspond with the recommended monitoring plan. For example, a daily INR should be ordered on all patients without stable INR receiving warfarin.
  - Takes appropriate action based on analysis of monitoring results (redesign regimen and/or monitoring plan if needed).
  - Responds appropriately to notifications and alerts in electronic medical records and other information systems which support medication ordering processes (based on patient weight, age, gender, co-morbid conditions, drug interactions, renal function, hepatic function, etc.) Resident aware where to locate this information in EPIC, elsewhere.
- Schedules follow-up care as needed to achieve goals of therapy. If there is dose adjustment made, such as adjustment to digoxin dose, then follow-up steady-state level should be ordered and followed upon.

(Applying) Document direct patient care **Activities** appropriately in the medical record or where appropriate.

**Activities:**
- Selects appropriate direct patient-care **Activities** for documentation. (e.g., Formal Consults for dosing and education, Warfarin counseling, CHF counseling, Sotalol/Dofetilide counseling, pneumonia counseling).
- Documentation and communication is clear and addresses pertinent patient related issues when passing information to other pharmacists (progress notes, iVent’s, verbal pass offs, etc).
- Follows Asante’s policies and procedures and utilizes or incorporates appropriate note templates and tools within EPIC to help ensure documentation of pertinent clinical activities.

(Applying) Demonstrate responsibility to patients.

**Activities:**
- 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).
- Routinely completes all steps of the medication management process, including initiation, counseling, monitoring, follow up when appropriate.
- Assumes responsibility for medication therapy outcomes, including proper documentation and shift hand-off for issues needing to be communicated to the next shift.
- Actively works to identify the potential for significant medication-related problems – utilizes appropriate resources to address these issues and prevent adverse effects from occurring. Actively pursues all significant existing and potential medication-related problems until satisfactory resolution is obtained.
- Informs patients how to obtain their medications in a safe, efficient, and most cost-effective manner. May offer any drug assistance cards if available on the floor or further coordinate with discharge planning and physician for medications that would otherwise be a major financial burden.
- 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). Reports medication-related problems (e.g., ADRs, medication errors, drug interactions).

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

(Applying) Manage transitions of care effectively.
Activities:
- Follows up on all identified drug-related problems during transitions of care, and makes appropriate recommendations when necessary, including communicating recommendations with appropriate medical staff.
- Participates effectively in medication education with various medications commonly seen on the cardiology unit and routinely consulted for either from physician or per protocol (warfarin, new oral anticoagulant, heart failure, etc).
- Provides accurate and timely follow-up information when patients transfer to another level of care, pharmacist, or provider, as appropriate. This may include relaying information to staff on other floors that your patient may transfer to.
- Follows up in a timely manner with medication reconciliation upon admission
- Completes HF medication reconciliation and education at discharge

Competency Area R4: Teaching, Education, Dissemination of Knowledge

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

(Applying) Use effective presentation and teaching skills to deliver education.

Activities:
- Demonstrates rapport with learners.
- Body language, movement, and expressions enhance presentations.
- Utilizes patient handouts to support their understanding of the education, when available (warfarin, pneumonia, and discharge counseling).
- Answers patients and health care professional’s questions with ease and confidence.

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:
- Possible Literature Review or Topic Discussion:
  1. CHEST guidelines regarding antithrombotic therapy
  2. ACC/AHA guidelines for treatment of atrial fibrillation
  3. IDSA and other guidelines for treatment of endocarditis
  4. ACC/AHA guidelines for management of STEMI, unstable angina, and NSTEMI
  5. JNC8 guidelines for management of hypertension
• **Patient Care** (may include the following)
  1. Pharmacy consults ordered by physician
  2. Antithrombotic consults including Warfarin dosing protocol
  3. Antimicrobial monitoring (Stewardship)
  4. Vancomycin Dosing protocol
  5. HF education protocol
  6. Renal dosing protocol
  7. Pneumonia education protocol
  8. IV/PO protocol
  9. Medication reconciliation
  10. Triage, evaluate, and manage medication use for patients located on the heart center

Week 2, 3, 4:
• Continued Patient Care with expected improvement and efficiency in all aspects on a weekly basis.
• Continued literature review and topic discussion of things not covered or reviewed in week 1 or prior weeks.

**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.

PharmAcademic 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 face-to-face. 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 PharmAcademic. Evaluations will be completed no later than 7 days after the last day of rotation.

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<tr>
<th>What</th>
<th>Who</th>
<th>When</th>
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<tbody>
<tr>
<td>Summative</td>
<td>Preceptor</td>
<td>End of week 4</td>
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<tr>
<td>Preceptor/Learning Experience Evaluation</td>
<td>Resident</td>
<td>End of week 4</td>
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**Content of the Evaluation**
The preceptor is expected to grade the resident on the following scale:
• NI (Needs Improvement):
  o Resident needs a more exposure and additional formal evaluation on the topic, likely in two separate rotations.
  o 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 MRSA pneumonia

• SP (Satisfactory Progress):
  o 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.
  o Will be accompanied by actionable feedback from the preceptor.
  o Example: The resident’s analysis of the patient problem list is insufficient; the resident does not actively question the presence of each order to determine its appropriateness.

• ACH (Achieved):
  o 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.
  o 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

• At the end of the learning experience (preferably on the final day, if able) 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.

• Evaluations will be completed no later than 7 days after the last day of rotation.

• 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.”