Hospital Pharmacy Systems and Services

Description:
The Hospital Pharmacy Systems and Services rotation is a 9-month long longitudinal required learning experience in the residency that is started immediately following the CMC orientation and concurrent with the residencyOrientation. More intensive training in the rotation occurs in the first quarter of the residency (the equivalent exposure of a standard 4-week rotation), concurrent with required rotations in Pain Mgmt/Ortho and Internal Medicine I. Starting with the second quarter, the training primarily occurs on the scheduled staffing weekends, although Systems aspects are included in virtually all rotations.

The focus of the rotation evolves around the resident’s learning and participating in the drug distribution process in the centralized pharmacy, including the understanding of roles, oversight during the medication distribution process, and management of non-pharmacist staff. Clinical pharmacy services including management of pharmacy protocols governing pharmacokinetics, anticoagulation, renal dosing, therapeutic interchange and formulary management are also integral in the rotation. The primary goal of the rotation is to develop the resident’s ability to independently function within the medication system of the institution.

The rotation incorporates the Pharmacy staffing requirement of every 3rd weekend, typically beginning in second or third month of the residency.

The rotation will be extended into the final quarter of the residency if objectives related to Pharmacy Systems have not been achieved at the ACHR levels at the 9 month evaluation.

Professional Practice Activities:
1. Learn & maintain competence in the Pharmacy distribution system.
2. Learn about pharmacokinetics service to understand an appropriate patient monitoring strategy, considerations in dosage adjustment, and the writing of medication orders and progress notes.
3. Write orders governed by various pharmacy-managed protocols, including anticoagulation, renal dosing, and IV-to-po protocols.
4. Write timely and authoritative consults and progress notes regarding issues in drug therapy.
5. Learn and participate in the process of reporting an adverse drug event
6. Provide patient education

Preceptor roles: Various preceptors and non-residency preceptors staff the pharmacist positions in the central pharmacy on a rotationing basis. Each actively participates in all functions delineated above, and will serve as trainers and eventually facilitators when the resident is scheduled concurrently with their shift. The primary preceptor (TR) will oversee the training process, and adjust the training schedule as needed.
Preceptors/pharmacists will train the resident in the context of whatever shift they are assigned to, focusing on the duties of that particular shift. Once resident competency in a given area is achieved, the preceptor/pharmacist will serve in a facilitation role, serving as a resource for resident questions.

Faculty: Barten, Laurie; Reinivaara-Hall, Tuire; Tierney, Tiffany

Site:
Community Medical Center

Status: Active

Required
Resident Involvement in Rotation: The resident, after completing the computer system tutorial, will learn pharmacy medication distribution systems by working side-by-side with the pharmacy staff. This allows the integration of the resident to the pharmacy staff. The resident will learn unit-dose, IV admixture, and outpatient medication systems and will develop an ability to independently function as a pharmacist within these systems.

Work Experience- Staffing: Since a primary goal of the Pharmacy Systems rotation is to develop the resident's ability to independently practice and function within the medication system at CMC, the resident will independently staff pharmacist rotations (with oversight) when the resident and preceptor agree that the resident has had sufficient training and experience with supervision. The resident's competency in independent practice will be assessed as part of the overall assessment plan for this rotation and also will be assessed by the primary preceptor (TR) and RPD on the overall residency quarterly evaluations.

Periodic staffing obligations within the medication system will occur every 3rd weekend throughout the residency year and also on an "as needed" basis to cover for sickness and shifts which cannot be filled by on-call pharmacists. However, use of the resident for staffing during weekday clinical rotations will only occur as a "last resort" measure.

It is expected that resident competence for independent practice in the hospital pharmacy services will be achieved by the residency midpoint in December.

Expectation of Learners:

<table>
<thead>
<tr>
<th>Goal R1.3</th>
<th>Prepare, dispense, and manage medications to support safe and effective drug therapy for patients</th>
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</thead>
<tbody>
<tr>
<td>OBJ R1.3.1</td>
<td>(Cognitive - Applying) Prepare and dispense medications following best practices and the organization’s policies and procedures Taught and Evaluated Complete Cerner pharmacy computer system tutorial Participate in medication distribution system for both inpatients and outpatients</td>
</tr>
<tr>
<td>OBJ R1.3.2</td>
<td>(Cognitive - Applying) Manage aspects of the medication-use process related to formulary management Taught and Evaluated Review the pharmacy policy &amp; procedure manual, learn the hospital formulary, and develop competency to manage pharmacy protocols, e.g. therapeutic interchange program</td>
</tr>
<tr>
<td>OBJ R1.3.3</td>
<td>(Cognitive - Applying) Manage aspects of the medication-use process related to oversight of dispensing Taught and Evaluated Supervise and oversee technician &amp; intern activities within the pharmacy to optimize medication delivery</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal R2.1</th>
<th>Demonstrate ability to manage formulary and medication-use processes, as applicable to the organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBJ R2.1.3</td>
<td>(Cognitive - Analyzing) Identify opportunities for improvement of the medication-use system Taught Only Attend daily pharmacy huddles &amp; provide comments/recommendations for improvement in the drug distribution system</td>
</tr>
</tbody>
</table>
### Goal R3.1
**Demonstrate leadership skills**

**OBJ R3.1.1**  
(Cognitive - Applying) Demonstrate personal, interpersonal, and teamwork skills critical for effective leadership  
Taught and Evaluated  
Develop & successfully employ the role as supervisory pharmacist, manager or preceptor to support personnel including technicians, pharmacy interns, and students  
Establish a working relationship with pharmacy staff as well as physicians, nurses, and others to effectively deliver medications to patients

**OBJ R3.1.2**  
(Cognitive - Applying) Apply a process of on-going self-evaluation and personal performance improvement  
Taught and Evaluated  
Interact on an at least monthly basis during the first 3 months with the rotation primary preceptor (TR) to discuss progress in the rotation  
Prepare a self-evaluation of progress in the rotation, including potential for independent work at the end of the LE

### Goal R3.2
**Demonstrate management skills**

**OBJ R3.2.4**  
(Cognitive - Applying) Manages one’s own practice effectively  
Taught and Evaluated  
Provide patient medication education

### Goal R4.2
**Effectively employs appropriate preceptor roles when engaged in teaching students, pharmacy technicians or fellow health care professionals**

**OBJ R4.2.1**  
(Cognitive - Analyzing) When engaged in teaching, select a preceptor role that meets learners’ educational needs  
Taught Only  
Determine different instructional need when interacting with pharmacy interns, IPPE, or APPE students

**OBJ R4.2.2**  
(Cognitive - Applying) Effectively employ preceptor roles, as appropriate  
Taught Only  
Select & utilize different & appropriate instructional methods for pharmacy techs, pharmacy interns, IPPE, and APPE students

### Evaluations:

<table>
<thead>
<tr>
<th>Evaluation Type</th>
<th>Evaluator</th>
<th>Evaluated</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summative Evaluation</td>
<td>All Preceptors</td>
<td>Each Resident Taking this Learning Experience</td>
<td>Ending and Quarterly if Needed</td>
</tr>
<tr>
<td>ASHP Learning Experience Evaluation</td>
<td>Residents</td>
<td>Learning Experience</td>
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<tr>
<td>ASHP Preceptor Evaluation</td>
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<td>Residents</td>
<td>Each Resident Taking this Learning Experience</td>
<td>67.00%</td>
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<tr>
<td>Summative Evaluation</td>
<td>Residents</td>
<td>Each Resident Taking this Learning Experience</td>
<td>33.00%</td>
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