

Learning experience: Infectious Disease (PGY2-CC Required)

Preceptor:

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Purpose:

The primary purposes of this learning experience are to provide clinical pharmacy services for patients being seen by the infectious disease team. At the end of this learning experience you should be able to determine the most appropriate antimicrobial for treatment at the most effective dose for common disease states.

ID pharmacist role

Be prepared for rounds, attend rounds, ready to assist and provide additional information for patient care and teaching of residents, students, and fellows. Follow up on questions from the team to develop patient plans. Attend weekly ID meetings and provide feedback and comments. Manage antimicrobial formulary, evaluate the need for non-formulary products and if a need occurs, procure product in an appropriate amount of time. Evaluate discharge requests and assist with planning for infusion chair patients.

Learning experience expectations/responsibilities:

- Attend ID rounds daily
 - Rounds can start at any time between 1030-1500 depending on attending on service
 - Page the resident working with the ID team for rounding time
 - Be fully prepared prior to attending rounds
 - Discuss patients with preceptor prior to rounds
 - Perform pharmaceutical care monitoring for all assigned patients on the ID team list
- A case presentation/drug presentation is required at the end of the month
 - At least 2 sources of primary literature to answer a clinical question
- Clinical Pearl for Staff
 - At least one clinical pearl email to staff over rare drug/bacteria/disease state
- Attend Infection prevention, Antimicrobial Stewardship, and ID weekly meetings
- Formulary review/DUE
 - Some review will likely be required during your learning experience and determined early in the month to allow plenty of time
- Precept any students or residents that happen to be on rotation with you during your learning experience
- Meet to discuss patients and review readings

Disease States

The resident will be expected to gain proficiency through literature review, topic discussions, and/or direct patient experience in all of the following but not limited to:

- CNS infections
- Complicated intra-abdominal infections
- Infections in immunocompromised host
- Endocarditis
- Pneumonia
- Sepsis
- Wound infections

Goals and Objectives:

- R2.1 Establish collaborative professional relationships with other members of the interdisciplinary infectious disease team
- R2.4 Collect and analyze pertinent patient information
- R2.5 Design evidence-based therapeutic regimens for infectious disease patients
- R2.6. Design evidence-based monitoring plans for infectious disease patients
- R2.9 Evaluate infectious disease patients' progress and redesign regimens and monitoring plans
- R3.1 Provide effective education or training to health care professionals and health care professionals in training

Learning experience activities: (bold evaluate, non-bold – taught)

Activity	Objectives Covered
<p>Accurately gather, organize, and analyze patient specific information on assigned patients prior to rounds and/or discussion with preceptor. Review profiles to identify medication-related problems to discuss with preceptor and then prescriber.</p> <ul style="list-style-type: none"> • Identify medication related problems • Recommend solutions to identified problems to preceptor then the team • Prioritize problems for concise discussion with preceptor and/or the team • Communicate ongoing patient related issues with decentralized pharmacists 	<p>R2.4.1 R2.4.2 R2.6.1 R2.9.1 R2.9.2 R2.9.3</p>
<p>Actively participate in team rounds daily. Based on potential medication related problems identified by working up your patients, be prepared to:</p> <ul style="list-style-type: none"> • Recommend solutions to identified problems • Respond to drug information questions verbally • Follow up on medication related problems identified during rounds. 	<p>R2.1.1 R2.4.1 R2.4.2 R2.6.1</p>

Activity	Objectives Covered
Determine when the information is needed and assure you provide the follow up information within the appropriate time frame. <ul style="list-style-type: none"> • Ensure medication orders are written appropriately (Drug, dose, route, frequency) • Recommend appropriate selection and monitoring of therapeutic regimen based on individual patient needs. 	
Complete a clinical pearl and a presentation to the pharmacy staff during the month <ul style="list-style-type: none"> • Presentation should answer a question that will have an effect on treatment Include at least two sources of primary literature 	R3.1.2 R3.1.4 R3.1.5
When on rotation with pharmacy students or PGY-1 residents take as much opportunity as possible to precept them <ul style="list-style-type: none"> • Educate them during rounds • Lead topic discussions • Lead patient discussions • Evaluate student/residents process through the Learning experience 	R3.1.1 R3.1.2 R3.1.3 R3.1.4 R3.1.5

Anticipated Resident Progression:

Week 1-2: Look up all patients on the ID service before meeting with preceptor. As time progresses look up necessary lab work to determine diagnosis and then treatment of these patients. Some missing laboratory work is acceptable at this time as the resident is learning what material is important. The goal is resident to have the patient assessment and plan done before meeting with the preceptor. During these two weeks more discussion can occur to come to conclusions with a progression to a detailed assessment and plan with evidence based medicine backing it up. Work to incorporate yourself with the infectious disease team, gaining their trust with good evidence based recommendations and follow up. Lock down a topic for your presentation and start working on it.

Week 3-4: Continue to look up patients before meeting with preceptor. At this point limited information should be missed regarding laboratory or clinical findings in infectious disease states. Assessment and plans should be developed with evidence based medicine backing before meeting with preceptor. Have an established relationship with the Infectious Disease team and continue to follow up with questions or recommendations. Have the presentation completed several days before it's presented to have time to work on details and transitions.

Requirements:

Expected hours: 0800-1700; these times may vary depending on patient census, service requirements, and attending on service.

Required presentations/written assignments:

1. One formal presentation (drug review, patient case, etc)
 - a. Generally given to pharmacy staff, but can change
 - b. Must have 2 sources of primary literature to help answer a clinical question

Required readings:

- Disease state discussions will focus on IDSA guidelines with supplementation of new research. These guidelines can be found at www.idsociety.org

- Opportunistic infections
 - Cryptococcal meningitis
 - Pneumocystis
 - Histoplasmosis
- Nosocomial/CAP pneumonia
- More subjects will be based on patient population
- Advanced Pharmacokinetic/Pharmacodynamics
 - Pharmacotherapy 2006; 26(9):1320-1332. (introduction to topic)
- HIV disease state
 - Mandell chapter. Additional supplemental material will be added

Method of evaluation:

Evaluation of the resident will be based on the ASHP activity learning experiences listed above. Each learning activity has a corresponding code following the experience which corresponds to the activity learning experience listed in PharmAcademic. During the orientation to the learning experience, the preceptor and the resident will review all the material contained in this learning experience description and sign a copy to be retained in the residents file.

The preceptor will provide feedback informally (verbally) and formally (electronically via PharmAcademic) throughout the course of the learning experience. Once the resident is finished with all of the requirements for the learning experience, the preceptor and the resident will discuss the learning experience as a whole both formally and informally.

The resident will be responsible for providing a formal self-evaluation using the goals listed above and also evaluate the learning experience as a whole.

I have read and acknowledged the responsibilities of this earning experience.

Pharmacy Resident

Primary Preceptor