

Program Structure

The program consists of a series of educational rotations and a number of longitudinal experiences. The PGY2 Pharmacy Residency Program Curriculum has been developed with the goal of fulfilling the required purpose.

Required Learning Experiences (40 week minimum)		
Learning Experience	Typical Duration	Comments
Orientation/Training	4 weeks	Orientation/Training may be shortened to 2 weeks if resident completed PGY1 at MCHS Location: Marshfield Medical Center – Marshfield
Adult Infectious Diseases and Antimicrobial Stewardship I	8 weeks	Administration of the antimicrobial stewardship program with progressive responsibilities. Location: Marshfield Medical Center – Marshfield with remote surveillance of regional sites
Adult Infectious Diseases and Antimicrobial Stewardship II	8 weeks	Administration of the antimicrobial stewardship program with progressive responsibilities Location: Marshfield Medical Center – Marshfield with remote surveillance of regional sites
Pediatric Infectious Diseases and Antimicrobial Stewardship	8 weeks	Rounding with pediatric infectious diseases physician for hospital, tele-health, and ambulatory based consultation Location: Marshfield Medical Center Pediatric Hospital – Marshfield
Ambulatory Infectious Diseases and Antimicrobial Stewardship	8 weeks	Administration of ambulatory based antimicrobial stewardship activities across the 60+ ambulatory clinics and urgent care centers. Location: Marshfield Medical Center – Marshfield with remote surveillance of regional sites and opportunity to travel
Clinical Microbiology	2 weeks	Microbiology rounds and working alongside microbiologists through the full service microbiology lab, Level III biohazard safety lab, mycology lab, and molecular lab. Location: Central Microbiology Lab within the Marshfield Campus
Infectious Diseases Consult	2 weeks	Rounding with adult infectious diseases physicians for hospital, tele-health, and ambulatory based consultation Location: Marshfield Medical Center – Marshfield
Required Longitudinal Learning Experiences		
Learning Experience	Typical Duration	Comments
Didactic and/or Continuing Education	Concurrently over 1 year	Monthly provision of a mixture of education. Examples include: <ul style="list-style-type: none">• Departmental Journal Club• Didactic pharmacy and/or medical resident education• Regional health system provider education• Grand Rounds (At least once as a CPE accredited presentation)• Fall Pharmacotherapy Conference (At least once as a CPE accredited presentation)
Staffing Component		At least 1-week of every month, maintaining daily direct patient care responsibilities of the protected antimicrobial use and criteria for use policies, fielding provider and staff questions, and carrying the antimicrobial stewardship phone and pager
Infectious Diseases Research/Project		Occurs concurrently with scheduled learning experiences. Milestone due-dates for research proposal, ASHP abstract, ASHP poster, research protocol, and final manuscript. This also includes a required medication safety project involving a combination of medication use evaluation, process improvement, pharmacist or provider education, etc.
Antimicrobial Stewardship Program Management		Increased administration of the policies and procedures required to maintain the antimicrobial stewardship program including but not limited to the protected use of antimicrobial agents policy, critical microbiology results review, data collection and presentation. At least once during the year leading the Systemwide Antimicrobial Stewardship Committee meeting
Elective Learning Experiences		
Learning Experience	Typical Duration	Comments
Emergency Department/Urgent Care	4 weeks	Staffing as a clinical pharmacist imbedded in the 38-room combined ED/Urgent Care center, the resident will incorporate infectious diseases and antimicrobial stewardship into the normal workflow of the imbedded pharmacist. This learning experience will expose the resident to both critically ill patients with severe infectious diseases at the point of empiric treatment as well as to more mild-to-moderate infectious syndromes.
Surgical ICU	4 weeks	Staffing a large surgical intensive care unit caring for patients with a variety of infectious syndromes. Common presentations include surgical site infections to trauma related diseases
Medical ICU	4 weeks	Staffing a large general medical intensive care unit caring for critically ill patients with a variety of infectious

		syndromes
Regional Center	4 weeks	The resident will rotate through one of the regional hospitals including but not limited to (Marshfield Medical Center – Weston, Minocqua, Eau Claire, Rice Lake)
Research	4 weeks	If the resident chooses to participate in another research project apart from the required listed above, during this learning experience the resident will be given the breadth to pursue the development of another research question, protocol, and manuscript with the expectation of a complete draft manuscript by the end of the residency
Experimental Learning Experience: New Service Development	4-8 weeks	The scope of this experimental learning experience is up to the needs of the health system and the needs of the resident in their training. (E.g. OPAT service, HIV PrEP/PEP, etc.)
Professional Development Opportunities		
Opportunity	Deliverable	Approximate Timing
ASHP Midyear	Poster Presentation	December (Second Quarter)
Wisconsin Pharmacy Residency Conference (WPRC)	PowerPoint Slides	April (Fourth Quarter)
ID Week	Poster Presentation	October (Second Quarter)

a. More on Learning Experiences

- The resident must select Electives to fulfill remaining 12 weeks of residency year.
- Direct Patient Care learning experiences utilizing non-pharmacist preceptors and without direct full time pharmacist oversight (e.g. ID consult) will be scheduled when evaluations conducted at the end of previous learning experiences reflect readiness to practice independently and the RPD and preceptors agree the resident is ready for independent practice. A non-pharmacist preceptor and a pharmacist preceptor will be assigned for these learning experiences.
- Residents should select their electives by August. Residents are allowed to request a max of 2 elective rotation changes per academic year, which must be submitted by January 1.
- Resident may choose up to 8 weeks of non-direct patient care elective

b. Learning Experience Sequence

- Orientation and at least the first 4-weeks of the Antimicrobial Stewardship and Infectious Diseases I learning experience completed prior to the start of the staffing component
- Microbiology and Antimicrobial Stewardship and Infectious Diseases I learning experiences completed prior to any direct patient care learning experience with a non-pharmacist preceptor or any elective.
- Experimental learning experience elective or research elective requests will be reviewed by the Residency Advisory Committee based on merit of the resident's pro forma/research question
- Learning experience sequencing requests will be reviewed by the Residency Advisory Committee (e.g., residents seeking work in a specific arena who would benefit from extra focus)
- Please notify program director of any proposed changes (e.g., changes in electives chosen) by ASHP Midyear timeframe. Residents are allowed to make up to 1 more additional rotation change request before spring of their academic year.

c. Required Longitudinal Experiences

- **Didactic or Continuing Education (52 weeks)**

- o Monthly provision requirement (any one):
 - Prepared journal club
 - Pharmacy/medical resident presentation
 - Grand Rounds
 - Fall Pharmacotherapy Conference
 - Regional/National Meeting Poster
 - Departmental presentations
 - Recorded presentations
 - Others as approved by the RPD
- o At least 3 of these monthly requirements must provide ACPE and/or CME
- o In the event of life circumstances or other situations out of the resident's control, this may be modified by approval of the RAC to no less than two.

- **Staffing Component (40-42 weeks)**

- o At least 1-week of every month the resident while on regularly scheduled learning experiences will be responsible additionally for:
 - Maintaining daily direct patient care responsibilities of the protected antimicrobial use and criteria for use policies
 - Fielding provider and staff questions
 - Carrying the antimicrobial stewardship phone and pager
- o In the event the resident is unable to carry out these responsibilities while maintaining excellent care in the current learning experience, the RPD will be notified and make up days will be scheduled at a later time.
- o The RPD will maintain regular communication with the resident before, during, and after these weeks to ensure resident well-being and good standards of care are maintained
- o Minimum of 9 weeks per calendar year

- **Research Longitudinal (52 weeks)**

- o Residents will select and complete a project during the residency year.
- o Some of the key components of this learning experience include:
 - Participate in the Resident Research Program (including completion of the Collaborative Institutional Training Initiative (CITI) program)
 - Attend at least 2 Institutional Review Board (IRB) meetings
 - Prepare Poster Presentation and present at National meeting (e.g., ASHP Midyear)
 - Regional Pharmacy Conference Project Presentation (April)
 - Marshfield Clinic Medical Education Day Project Presentation (May)

- Complete manuscript draft prior to end of residency
- Additional medication safety project in coordination with medication safety pharmacy team.
 - May involve a combination of medication use evaluation, process improvement, pharmacist or provider education, etc.

d. Other non-learning experience expectations:

- Health-system outreach - Along with the residency director, periodic travel to regional sites of the health system for provision of pharmacist and healthcare professional education

Requirements for Successful Completion of the Residency Program (Standard 2.5)

The PGY2 Infectious Diseases Pharmacy Residency is a minimum of twelve months (52 weeks) of training. In keeping with the goals stated above, the following is a set of objectives and expectations for Marshfield Clinic Health System pharmacy residents:

1. Obtain Wisconsin pharmacy licensure within the specified time frame of the Licensure policy
2. Provide a copy of their PGY1 residency completion certificate within 30 days of the start of the residency program
3. Review at the beginning of the academic year (within 14 days of the start of the residency) these goals and objectives and the entire residency manual (Standard 2.10).
4. Attend all required lectures, conferences, and other academic events. Answer phone calls, respond to voicemails and respond to pages in a timely manner.
5. Attend all required academic and scientific meetings (e.g., Pharmacy Society of Wisconsin, +/- ASHP Midyear Clinical Meeting, ID Week, MAD-ID). Other meetings may also arise and attendance expectations will be discussed between the resident and the Program Director.
6. Complete all data-tracking activities as required by the program (e.g., PharmAcademic™ evaluations). Remember to discuss evaluations with your preceptor prior to submitting in PharmAcademic™.
7. Be present for and give feedback regarding candidates interviewing for residency positions in pharmacy.
8. The requirements for overall achievement of educational objectives for the residency in order to be awarded a certificate of completion: All R1 Patient Care Objectives (100%) must be achieved (ACHR) by the end of the residency. Eighty percent (80%) of R2, R3, and R4 objectives must be achieved by the end of residency.

9. Residents' primary professional commitment must be to the residency program. A residency is a full-time obligation. Residents must manage their activities, external to the residency, so as not to interfere with the program requirements as defined in the ASHP Standard.
10. Residents must seek constructive verbal and documented feedback that direct their learning. Residents must be committed to making active use of the constructive feedback provided by residency program preceptors and the program director.
11. The resident agrees to the staffing component of the residency. The Residency Director is responsible for following the duty hour rules set forth by the Accreditation Council for Graduate Medical Education. Please note this staffing component is different than what is required in most PGY1 programs. At least 1-week of every month the resident while on regularly scheduled learning experiences will be responsible additionally for:
 - a. Maintaining daily direct patient care responsibilities of the protected antimicrobial use and criteria for use policies
 - b. Fielding provider and staff questions
 - c. Carrying the antimicrobial stewardship phone and pager
 - i. In the event the resident is unable to carry out these responsibilities while maintaining excellent care in the current learning experience, the RPD will be notified and make up days will be scheduled at a later time.
 - ii. The RPD will maintain regular communication with the resident before, during, and after these weeks to ensure resident well-being and good standards of care are maintained
 - iii. Minimum of 9 weeks per calendar year
12. In addition to the above, residents will be required to present all of the following deliverables by the end of the residency year:

PGY2 Infectious Diseases Pharmacy Completion Requirements and Deliverables Table:

Completion Requirement	Location of Documentation	Deliverable
Wisconsin pharmacy licensure per timeframe within licensure policy	Workday	Copy of pharmacy licensure
Provision of PGY1 Residency certificate of completion	Resident files in PharmAcademic, physical copies returned to Pharmacy Director	Copy of PGY1 completion certificate
Complete all of the required learning experiences		Summative evaluation in PharmAcademic
Complete draft manuscript of longitudinal research project		Complete manuscript draft
Regional Pharmacy Conference Presentation		Complete slides
ASHP Midyear or other Meeting Poster		Complete poster
Completion of at least one pharmacy division cost reduction project		Visual summary of cost reduction project and results
At least one Grand Rounds Presentation		Complete slides
Presentation at Pharmacotherapy Conference		Complete slides
At least one antimicrobial/infectious diseases related monograph presented to the Systemwide Pharmacy and Therapeutics Committee		PDF monograph uploaded to the Systemwide P&T folder along with meeting minutes
Prepare and present the systemwide antibiogram to the Systemwide Pharmacy and Therapeutics Committee		Physical trifold antibiogram and Systemwide P&T minutes
Present at systemwide ID Journal Club		Physical handout or complete slides from presentation
Develop at least one treatment guideline		Uploaded guideline to the Antimicrobial Stewardship Program webpage
All R1 Patient Care Objectives (100%) must be achieved (ACHR) by the end of the residency. Eighty percent (80%) of R2, R3, and R4 objectives must be achieved by the end of residency		Evaluations in PharmAcademic
Complete Appendix requirements as outlined in ASHP CAGOs document (see below)		Completed Table

Completion Requirements Tracker	End of Quarter 1	End of Quarter 2	End of Quarter 3	End of Residency
All R1 Patient Care Objectives (100%) must be achieved (ACHR) by the end of the residency. Eighty percent (80%) of R2, R3, and R4 objectives must be achieved by the end of residency				
Wisconsin pharmacy licensure				
PGY1 Residency certificate				
Complete all of the required learning experiences				
Complete draft manuscript of longitudinal research project				
At least one Grand Rounds Presentation				
Presentation at Pharmacotherapy Conference				
Regional Pharmacy Conference Presentation				
ASHP Midyear Poster				
Completion of at least one pharmacy division cost reduction project				
At least one antimicrobial/infectious diseases related monograph presented to the Systemwide Pharmacy and Therapeutics Committee				
Prepare and present the systemwide antibiogram to the Systemwide Pharmacy and Therapeutics Committee				
Present at systemwide ID Journal Club				
Develop at least one treatment guideline				
Complete Appendix requirements as outlined in ASHP CAGOs document (see below)				

Infectious Diseases Appendix CAGO Requirements:

[illegible]

Sample Resident Schedule:

	July		Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Orientation	2W												
Microbiology		2W											
AS I			8 W										
AS II					8 W								
ID Cons							2W						
Amb AS								8W					
Elect I										4W			
Ped AS											8W		
Elect II													4W
Research (L)	X	X*	X*	X*	X*	X*	X*	X*	X*	X*	X*	X*	X*
Staffing (L)			X**	X**	X**	X**	X**	X**	X**	X**	X**	X**	X**
Education (L)		X	X	FP	X/GR	X	X	X	X	X	X	X	X
Med Saf (L)		X*	X*	X*	X*	X*	X*	X*	X*	X*	X*	X*	X*
Outreach (L)		X	X	X	X	X	X	X	X	X	X	X	X
Prog Admin (L)		X*	X*	X*	X*	X*	X*	X*	X*	X*	X*	X*	X*

* Every Tuesday afternoon protected time (Noon-5PM). Exempt from staffing requirement.

**One week every month starting after the first 4 weeks of AS I

Abbreviations: AS (Antimicrobial Stewardship and Infectious Diseases, Cons (Consult), Amb (Ambulatory), Ped (Pediatric), Elect (Elective), Med Saf (Medication Safety Project), Prog Admin (Antimicrobial Stewardship Program Administration)

Protected Academic Time (e.g., Project Time)

Academic time is important for building resident competency and is valued by both ASHP and the Marshfield Medical Center Pharmacy Residency Program.

Every Tuesday Afternoon (~ Noon-17:00)

By being given this protected academic time away from patient care, residents acknowledge that the time will be maximized and used for academic purposes. Acceptable uses for protected academic time include:

- Working on ongoing resident research, manuscript preparation, committee assignments, rotation assignments, presentations, or longitudinal management activities.
- Abuse of this protected time will result in disciplinary action, including restrictions on future academic time and/or the assignment of an activity.

Exceptions to protected academic time include:

- When the departure of a resident from the clinical area to attend academic time places a patient in imminent danger

Extracurricular Education

Throughout the course of each year residents will routinely need to spend time outside of the typical clinic day in preparation for the academic assignments given. This outside learning interval should be expected. Certain required and recommended meetings will occur during weekends. Some didactics and projects related to the longitudinal learning experiences (e.g., research) may occur outside of normal clinic hours as well.