

Residency Manual

Department of Pharmacy



Revised March 2021

Welcome!

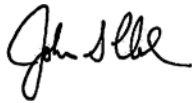
Congratulations on starting your residency at Michigan Medicine!

We are very pleased to welcome you as a new member of Michigan's highly trained and dedicated pharmacy team. Your pharmacy residency is an exciting and unique time to focus on learning and refining clinical skills. We are dedicated to providing you with a variety of high-quality learning experiences during your residency. We believe that your residency year should be customized to your specific interests, strengths, and enhancing relative weaknesses. Please do not hesitate to discuss opportunities to tailor activities to your specific interests.

This year you will experience great professional growth that is directly related to the amount of commitment and dedication applied. At Michigan, it is our goal to partner with you to guide you on your journey to become a highly trained and independent pharmacist.

Again, congratulations and welcome to the team!

Best regards,

A handwritten signature in black ink, appearing to read "John S. Clark". The signature is fluid and cursive, with the first name "John" being the most prominent part.

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Associate Chief Pharmacy Officer-Michigan Medicine
Clinical Associate Professor- University of Michigan College of Pharmacy
PGY1 Pharmacy Residency Program Director

Table of Contents

This manual has been developed for the Pharmacy Residency Programs at Michigan Medicine to provide information on the policies, procedures, benefits, and other elements that may directly relate to the completion of our program.

Questions regarding the manual may be addressed with the Residency Program Director or the Residency Advisory Committee (RAC). There may be changes to the policies and procedures at any time when deemed necessary. You will be informed of those changes accordingly.

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1. Overview of the Program

A. University of Michigan Health System

University of Michigan Health System is part of the 82-acre University of Michigan Medical Center with a total of 1,000 licensed beds. University Hospital is a 577-bed tertiary care teaching complex. Opened in February 1986, the University Hospital contains adult inpatient care programs and most of the administrative and support units. The C.S. Mott Children's Hospital houses pediatric and neonatal patient care programs while the Von Voigtlander Women's Hospital provides maternity and gynecological services. The Children and Women's (CW) Hospitals opened in December 2011.

Across the Huron River, the Kellogg Center houses the ophthalmology programs. The Cardiovascular Center (CVC) staff provide care for forty-eight inpatients and inpatient clinics. Adjacent to the University Main Hospital is the Taubman Ambulatory Care Center with more than 100 specialty clinics. The Cancer Center is near Main Hospital and includes an infusion pharmacy and outpatient pharmacy. The East Ann Arbor Health Center houses one outpatient pharmacy and an infusion pharmacy. In addition, the University staffs several outpatient community medical facilities including Saline, Canton, Dexter, Chelsea, Brighton, and Northville.

B. Residency Program Mission, Vision Statements and ASHP Residency purpose statements

Mission

The mission of the PGY-1 and PGY-2 postgraduate programs at Michigan Medicine is to develop practice, teaching and research skills of the pharmacy residents, and to nurture the pursuit of professionalism, personal excellence, and leadership in the field of pharmacy.

All available resources will be mobilized to achieve the following objectives:

- Leadership skills: The residency shall build upon individual and professional leadership skills of the residents.
- Clinical competency: The residency shall improve verbal and written communication skills, research capabilities, knowledge base, and clinical skills of the residents.
- Professionalism: The residency shall promote responsible and ethical conduct of the residents in accordance with the practice standards of the profession of pharmacy.

Vision

The pharmacy residencies at Michigan Medicine will be the most respected postgraduate educational and training pharmacy residency programs that graduate high quality pharmacy professionals as measured by their pharmaceutical care skills, scholarly activities, and leadership.

ASHP Pharmacy Residency Purpose

PGY1 Program Purpose: PGY1 pharmacy residency programs build on Doctor of Pharmacy (Pharm.D.) education and outcomes to contribute to the development of clinical pharmacists responsible for medication-related care of patients with a wide range of conditions, eligible for board certification, and eligible for postgraduate year two (PGY2) pharmacy residency training.

PGY2 Program Purpose: PGY2 pharmacy residency programs build on Doctor of Pharmacy (Pharm.D.) education and PGY1 pharmacy residency programs to contribute to the development of clinical pharmacists in specialized areas of practice. PGY2 residencies provide residents with opportunities to function independently as practitioners by conceptualizing and integrating accumulated experience and knowledge and incorporating both into the provision of patient care or other advanced practice settings. Residents who successfully complete an accredited PGY2 pharmacy residency are prepared for advanced patient care, academic, or other specialized positions, along with board certification, if available.

C. Program Administration

Residency Program Director (RPD)

The RPD has ultimate responsibility for the residency program they oversee. This responsibility is accomplished with the assistance of the residency program coordinator(s) (RPC) along with the resident advisory committee (RAC). The RPD is to ensure program goals and objectives are met, preceptors are appropriately provided for learning experiences, evaluate the progression of residents to graduation, ensure evaluations are completed, and help implement any necessary HR-related actions (ie: disciplinary action, approval of leave of absence, etc).

Residency Program Coordinator (RPC)

The RPC works with other RPDs of programs to assure overall program goals and learning objectives are met, training schedules are maintained, are involved in preceptor development, help coordinate on-boarding and interview events, and in general provide a support system to the structure and function of the entire residency program. The RPC also serves as the permanent chair to the RAC. Each PGY2 program may have their individual RPC.

Residency Advisory Committee (RAC)

RAC is involved in recruiting and selecting pharmacy residents, including the initial screening of applicants, designing of interview itineraries, and the final ranking of candidates. Orientation of new residents to the Health System and coordination of all residency functions are also responsibilities of RAC. Other responsibilities of RAC include mentorship roles for residents, ensuring ASHP requirements, residency goals/objectives, and project deadlines are met throughout the year, approval of the rotation schedule and subsequent modifications, vacation requests, travel to professional meetings and conferences, and resident involvement in College of Pharmacy functions.

Other programs have RAC specific for their program and with their preceptors with the purpose of tracking resident's progress throughout the year.

RAC Appointed Mentor

All PGY1 residents will be *assigned* a RAC Mentor. For residents this will be one of the following: the PGY1 RPD, the RPC, a rotating RAC clinician Member, the rotating College Faculty member **or** the rotating pharmacy operations member. For PGY2 residents the RAC appointed mentor will be their PGY2 RPD.

Responsibilities of the RAC appointment mentor include:

- Oversight of resident progress through the residency year
- Reviewing evaluations of the resident at least quarterly as part of the quarterly evaluation
- Reviewing Research and Writing evaluations with resident
- Coordinating of information at the resident quarterly evaluation meetings,
- Documenting resident progress and any changes to the residents' development plan,
- Planning any necessary remediation in conjunction with the program RPD and RPC

Chosen Mentor

All residents will *choose* a mentor. Residents may choose a mentor from an approved list of mentors.

Responsibilities of the Chosen Mentor include:

- Serve as an advisor and advocate for the assigned resident for the course of the year
- Help the resident to achieve individual and residency goals and to address any perceived deficiencies
- Function as a confidant for the resident, to whom the resident can voice concerns, problems or praises
- Attend resident's quarterly evaluation meetings (see description below)
- Meet with the resident individually at least quarterly (in addition to quarterly evaluation meetings).

D. Scope of Activities

Please refer to the University of Michigan Health System Pharmacy Annual Report (located on the pharmacy residency website and the internal website) for updates to our department.

2. Resident Responsibilities

A. Licensure

Pharmacy licensure in the state of Michigan is a requirement for all residents and should be obtained before the residency begins or as soon as possible thereafter. Michigan licensure includes a pharmacist license and a controlled substance license.

All residents per UMHS policy must obtain licensure within 60-days of hire. If licensure is not obtained within 60-days, a written plan must be created with the RPD of the program and submitted to RAC and the RPC for tracking purposes. The plan must be documented at least every 4-weeks and resubmitted to RAC monthly. During that time, residents cannot staff on the weekends or complete their Medication Use Policy/Operations rotation and must find their own replacements to switch.

If not obtained by November 1st, the resident will be dismissed from the program.

See policy 115.10: Pharmacy Staff License and Certification Requirements and Verification

B. Graduation Requirements

Criteria as described below must be met in order for the resident to receive their completion certificate. These graduation requirements refer primarily to the PGY1 Pharmacy Practice residency but are applicable to all programs. For any deviations from the requirements, please reference each program-specific appendix in appendix I.

Direct Patient Care Experiences

- Completion of 80% or more of ASHP Required Outcomes (educational goals and associated objectives). A minimum average score of “5 or proficient” is required for the remaining objectives
- All evaluations for rotations will occur and be completed in PharmAcademic® software program

Scientific Advancement and Research

- Research project suitable for publication
 - At a minimum, the resident research project will be presented at the University of Michigan College of Pharmacy Research Day (poster presentation) and Great Lakes Residency Conference (oral platform presentation) pending financial support and availability of the conference. The venues of poster and platform may vary based on availability and funding.
- Writing project suitable for publication
- Seminar presentation that qualifies for ACPE continuing education credit

Leadership/Professional Involvement

- All residents will participate in a committee (either local, state, or national) to develop essential leadership skills. They have the responsibility of determining committee involvement with the assistance of preceptors during orientation.
- PGY1 residents are required to participate in at least 2 resident-run committees
- Participation in longitudinal professional development series
 - PGY2 residents are excused from research topics at the discretion of their RPD/project mentor

Teaching and Academia

- All residents receive faculty appointments at the College of Pharmacy. They are instructors for a one-semester course and may serve as a preceptor for clerkship students
- There is an optional teaching certificate opportunity

Longitudinal experiences

- Weekend staffing
- Code Blue response with Advanced Cardiac Life Support (ACLS) certification
- Clinical on-call

Community service

- At a minimum, residents will participate in 1 community service activity. The community service committee will organize this event on the behalf of the residents.
- Student-led free clinic: PGY1 pharmacy, PGY1 community, and PGY2 ambulatory care residents are required to participate in clinic and it counts towards their community service component. Other residents may volunteer as well.

Attendance and presentation at clinical meetings (if available per pandemic restrictions)

- Oral platform presentation at Great Lakes Residency Conference (excluded: PGY2 Psychiatry and PGY2 Pain and Palliative care residents which)

Tracking Graduation Requirements

The graduation requirement checklist (see Appendix A) will be filled out by the RAC assigned mentor for each resident.

The checklist is to be uploaded once all elements have been completed into PharmAcademic as a file by the Resident. Compliance audit at the end of each residency year will be perform by the RPC and will follow up with RPDs when their residents have not been uploaded.

C. Rotations

The resident will receive 10 one-month clinical rotations, divided between required and elective experiences. PGY1 residents (PGY1 pharmacy practice, PGY1 investigational drug, and PGY1 HSPAL) will receive a 6-week orientation starting in the middle of June. All residents will receive a one-month research rotation that always occurs in December.

Required Rotations

The required rotations must be taken at a University Health System site. The required rotations for PGY-1 pharmacy are:

- Critical care
- Practice management
- Medication use policy combined with operations
- Ambulatory Care: Residents may choose to take a longitudinal rotation or a one-month rotation
 - Longitudinal option: the resident would be in a primary care clinic for one half day every week for a 5-month block (beginning August 1st during the fall semester or January/ February 1st for the winter semester)
- Adult internal Medicine

Required rotations for PGY-2 and other PGY1 programs are listed in program-specific materials in Appendix I.

Elective Rotations

The elective rotations can be filled by an additional required rotation, by choosing any of the precepted elective rotations, or by soliciting RAC approval for a rotation that does not currently have a defined preceptor. PGY1 residents cannot exceed 3 rotations in the same specialty area (ie: max 3 critical care rotations, max 3 oncology rotations, etc).

Rotation options are listed in Appendix B and may vary from year to year based on preceptor availability.

Off-Site Rotations

Off-Site rotations may be considered on a case-by-case basis and are subject to approval by RAC annually for each rotation (including standing rotations). Standing off-site rotation approvals will occur each November. Due to licensing, HR, legal and financial considerations, every effort should be made to organize the experience within University of Michigan Health System.

To request off-site rotation for review by RAC, RPDs will need to fill out the off-site rotation form (see appendix C).

Rotation Schedule

The residents will be provided with information on when each preceptor/rotation is available. Residents are to confirm with each preceptor that the preceptor/rotation is still available for that month prior to adding it to their schedule. The residents will work with the rotation availability and each other to put together a rotation schedule that is then reviewed for appropriateness by RAC.

An example rotation schedule is listed below:

Rotation	Month of Residency Year
Orientation	PGY1: Last 10 business day in June and all of July PGY2: July
Rotation 1	August
Rotation 2	September
Rotation 3	October
Rotation 4	November
Research	December
Rotation 5	January
Rotation 6	February
Rotation 7	March
Rotation 8	April
Rotation 9	May
Rotation 10	June

Rotation Changes

Due to changes in interest, a resident may switch their rotations. Changes to the rotation schedule must be completed at least 2 weeks prior to a rotation starting. The resident must do the following:

- Confirm rotation and preceptor availability
- Seek approval for the rotation switch from the new preceptor, RAC assigned mentor, and their RPD and RPC
- Update the master schedule to reflect all changes

The RPD or RPC will ensure PharmAcademic changes occur to reflect the rotation changes.

D. Writing Project

The writing project is a mandatory component of the residency experience designed to expose residents to all aspects of preparing an article suitable for publication. Topics may include a review of a specific drug, class of drugs, or therapy for a specific disease state. In addition to review articles, case reports or case series with a review of pertinent literature, or a survey study with a literature review may also be acceptable writing projects, as long as the project requires the resident to learn the same skills as writing a review paper.

By the end of July, each resident is required to select a topic of interest from a RAC-compiled list of subjects and preceptors, or to work with a preceptor to develop an idea outside of the RAC- compiled list. PGY-2 residents get first choice of writing projects. PGY-1 residents rank writing projects. Acceptable preceptors for the writing project are those with at least the title of (Adjunct) Clinical Assistant Professor or higher. Throughout the course of the year, the resident and writing preceptor will meet periodically to discuss the paper and make necessary revisions in order to complete the project before the end of March. In order to assure substantial progress is made towards completion of the project, the residents must discuss the writing project at the quarterly resident/mentor meetings.

The final paper must be in a format suitable for publication and it must be deemed satisfactory by the preceptor in order to successfully complete the residency requirement. The writing project's content will be utilized ultimately for a one-hour ACPE Continuing Education (CE) seminar.

Resident Responsibilities

Residents are responsible for the following aspects of the writing project:

- The majority of the work on the article including:

- Outline composition
- Literature search
- Providing the preceptor with a copy of all articles cited
- Reading all articles cited
- Writing a draft of the article **AND**
- Making all necessary revisions
- Scheduling all meetings with the writing preceptor
 - The preceptor's work schedule must be taken into consideration (ie: staffing and vacation)
- Meet all deadlines established by the preceptor and RAC
- Any problems that arise that cannot be easily resolved between the resident and the writing preceptor should be brought to the attention of the resident's RAC-assigned mentor and RAC

Preceptor Responsibilities

The writing preceptors are responsible for the following aspects of the writing project:

- Directing the work of the resident throughout the year, providing ongoing critical reviews of the article as it is being written, and ensuring that deadlines are met
- Willing to devote time to the project (ie: assist in literature interpretation and/or writing of the article) in order to assure that the project is completed within the year
- Return any submitted draft with feedback and instructions by mutually agreed upon deadlines that help the resident meet the final March deadline
- Give final approval to RAC that the paper has been satisfactorily completed and is in a publishable format by filling out the appropriate evaluation form in PharmAcademic®
- Responsible for submission of the article to the journal of their choice
 - Order of authors for publication of the article is to be decided between the writing mentor and the resident
- Provide feedback to the resident's RAC-assigned mentor regarding progress on the project throughout the year and be present to discuss the progress at quarterly assessment meetings.
 - RAC should be notified if significant problems arise
- Copies of all drafts should be retained by the writing mentor to document the progress of the resident throughout the course of the year

Completion of the Writing Project

The writing project is considered complete when the following have been met:

- The writing project is completed within nine (9) months of the start of the residency year.
- The writing mentor deems that all of the revisions requested have been satisfactorily incorporated and that the paper is in publishable form
- The RAC-E deems that the final report, evaluation form in PharmAcademic, and preceptor feedback to resident have been satisfactorily completed

For a suggested writing project schedule timeline, see below:

Date	Description
Late June	Approved topic and preceptor list is distributed to residents
End of July	<ul style="list-style-type: none">• Resident notifies RPD and writing mentor of selected topic via email• Resident completes computerized literature search and collects and reads selected major articles on the topic
Early August	<ul style="list-style-type: none">• Resident and preceptor meet to schedule meetings and to discuss scope of paper and individual responsibilities• Rough outline is drafted
End of August	Resident submits completed outline to preceptor for approval
Early September	<ul style="list-style-type: none">• Resident collects and reads all articles• Preceptor is given selected/all articles to read• Schedule standing meetings to discuss progress of writing and allow for ongoing revisions
Early November	Writing project seminar outline and learning objectives must be turned in for continuing education accreditation of seminar in January/February
Late December	Handouts and other final continuing education accreditation materials must be turned in for seminar in January/February
January	<ul style="list-style-type: none">• Resident submits completed first draft (including text, table, figures, and references) to preceptor for review• Writing project seminars are scheduled
January through March	Resident and preceptor meet to discuss necessary revisions and editing
Middle of March	<ul style="list-style-type: none">• Final writing submission to preceptor.

	<ul style="list-style-type: none"> • Writing mentor gives their approval and notifies RAC assigned mentor that they are signed off as completed. • If writing mentor does not give approval, then opportunity for remediation via editing must be done no later than June 1st to ensure graduation
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E. Research Project

Each pharmacy resident will complete a longitudinal research project. Three general criteria should be considered in selecting a research project:

- It must deal with a topic of importance to the practice of pharmacy
- The project must be such that it can be completed during the residency year
- The subject matter should be of interest and value to both the resident and the Pharmacy Department

Approval of Research Proposals

All research project proposals must be reviewed and approved by RAC

- Preceptors submit research project ideas via a web-based form by mid-March each year
- Each proposal is reviewed by a review committee selected from RAC members (the RAC research review committee which includes the RPC, PGY1 RPD, and all non-RPD/resident members of RAC). The reviewers assess feasibility of the project to be completed within the residency time frame, appropriate sample size to meet study end points and feasible for the time frame, appropriate research question and methodology
- The reviewer questions/comments are collected and returned to the primary investigator (PI) within 4-6 weeks of the submission deadline
- Several options for responding to comments will be available. Electronic, written responses are encouraged. Additionally, the primary investigator will be invited to attend a RAC meeting to discuss feedback with the group in person. Any verbal discussion of feedback should be summarized in writing by one of the people involved in the discussion to be shared with the panel of reviewers.
- Once the reviewers' questions have been answered, the PI is informed of the acceptance or rejection of the proposal
- Once accepted, a project that is not yet chosen and completed by a resident may remain on the list of available projects after brief review for continued applicability and need for the project in future years

Suitability of Research Projects

- Research study design:

- The scope of the project may vary widely. Acceptable study designs include database, development of service, DUE/MUE, laboratory, and prospective and retrospective chart reviews. Other study ideas are encouraged and will be considered by the RAC Research Review Committee on a case by case basis. The project must provide sufficient and meaningful data to allow reaching a conclusion suitable for preparation of a final report. Projects do not need to be publishable but it is preferred that projects have a unique perspective or contribute to the pharmacy departmental goals. For projects that are not expected to be publishable, this should be clear to the residents during project selection.
- Feasibility
 - The project, including an appropriate typed final report, must be completed in the time frame of the Residency Program
 - The project must be monetarily feasible. For projects requiring outside support, it is advisable that funding be reasonably certain before a resident becomes involved.
- The project must allow sufficient involvement on the part of the resident. This includes a literature search to avoid duplication of work, project design, protocol writing, data collecting and analysis, and preparation of the final report.
- The resident must have a sufficient number of collaborators to ensure appropriate education and guidance (see preceptor responsibilities).

Resident Requirements

- Residents must complete a RAC approved research project
 - Residents will be provided a list of available research preceptors and projects in June. PGY2 residents get first choice at RAC-approved project list. PGY-1 residents rank projects.
 - If a resident has specific research they would like to pursue, then a preceptor must be identified, and a proposal can be submitted to RAC by Mid-July to consider the research project at that time.
- IRB approval or exemption is required PRIOR TO data collection.
- The resident is responsible for the majority of the work on the research project. They should be involved in all aspects of the study:
 - Proposal writing/editing
 - Study design
 - Data collection
 - Data analysis
 - Final report writing
- The resident is responsible for writing both the research proposal and final report including composition of an outline, literature search, writing the proposal/final report and making any necessary revisions

- The resident is responsible for preparing the IRB application and submitting the application as soon as possible
- The resident is responsible for scheduling all meetings with the preceptor
 - The preceptor's work schedule must be taken into account when scheduling meetings (ie: staffing, vacation)
- The resident must meet all established deadlines.
 - It is the resident's responsibility to notify RAC if these deadlines cannot be met or if a revision is necessary in the schedule
 - Any problems that arise that cannot be easily resolved between the resident and preceptor should be brought to the attention of RAC
- The resident must complete the research project in order to receive a residency certificate
- Resident attendance at the Research Series (optional)
 - This is a longitudinal lecture series scheduled to coincide with research deadlines and activity at the beginning of the residency year
 - It is intended to do the following:
 - Provide tools needed to conduct residency research projects and future research
 - Provide a consistent research experience through reading and discussion on core topics
 - Keep residents “on track” to meet requirements and deadlines for their research projects

Preceptor Responsibilities

- The preceptor is responsible for directing the work of the resident throughout the year including:
 - Critiquing the written proposal
 - Assisting with IRB application process
 - Training the resident regarding the experimental procedures
 - Teaching the resident how to perform data analysis and interpretation and
 - Critiquing the final report
- The preceptor must be willing to devote time to the project and facilitate the resident's completion of the research project within the residency year
- The preceptor is responsible for discussing authorship on any potential manuscripts that may result from the resident's research.
 - This discussion should occur prior to initiation of the research project and should make clear the resident's responsibilities and the order of authorship.
- The preceptor is responsible for editing the final report prior to submission to RAC

Format

The format of the research protocol and final report will vary for each project; clinical studies may have substantially different formats than administrative or drug use evaluation studies. However, accepted scientific methods and formats which are appropriate to the subject matter should be adhered to and the final written report must be of publishable quality.

The following outlines are suggested as a guide:

Research Protocol	Final Manuscript
I. Introduction/Background	I. Introduction
II. Objectives	II. Methodology
III. Significance of Proposed Project	III. Results
IV. Methodology	IV. Discussion and Conclusion
a. Patient Population	V. References
b. Inclusion Criteria	VI. Tables/Figures
c. Exclusion Criteria	
d. Procedures (ie: details of experiment)	
e. Data Analysis (ie: statistics)	
V. Funding (if applicable)	
VI. References	
VII. Tables/Figures	
VIII. Appendices (if applicable)	

Modifications and Progress

- If the research project is to be significantly modified after the initial presentation, RAC must be notified.
- If significant progress is not being made, the resident and/or preceptor must notify RAC

Completion of the Research Project

- The research project is considered complete after the preceptor and RPD deem that the final report has been satisfactorily completed
- The final manuscript must be sent to the program RPD

For a suggested research project schedule timeline, see below:

Date	Description
July 31	Notify RPD of topic and preceptor
Middle of July	Start of Resident Research Series
Early September	Submit rough draft of research project protocol to preceptor and RPD
October	Protocol Presentations to Department
By October 31	Submit final written protocol to preceptor and RPD
November through March 1	Data collection
March 1 through April	Complete data collection. Presentation of Results to Department (with practice presentation by 3 days prior to this presentation)
Late April	Presentation of results at Great Lakes Residents Conference
May through June	Prepare final manuscript, including results and discussion sections/completion of research project
Middle of June	Preceptor approval of manuscript; notification of approval to RPD/RAC mentor

F. Seminars

The pharmacy resident seminar series is designed to provide the opportunity to develop and improve the resident's presentation skills. During the course of the year, each resident will formally present the following:

- Research project proposal seminar
 - Typically presented in September and October
 - These should be approximately 20 minutes in length with 10 minutes at the end reserved for questions or comments
- Writing project seminar (CE presentation)
 - Typically presented from October through June, with PGY2s presenting first
 - CE presentations should be 45 to 50 minutes in length with 10 to 15 minutes at the end reserved for questions or comments
 - Since this is intended for pharmacists to obtain CE credit, all deadlines and rules imposed by the American Council on Pharmaceutical Education (ACPE) must be followed including the evaluation of the residents' presentations by faculty, fellow residents and students. Important deadlines must be met for ACPE approval of CE.
 - At least 90 days in advance of the presentation to the CE administrator:
 - Assessment
 - Updated curriculum vitae
 - Seminar outline
 - Learning objectives
 - At least 30 days in advance of the presentation to the CE administrator:
 - Final seminar slides
 - Handouts
 - Post-test questions
- Research project results seminar

Purpose

The objectives of the Residents' Seminar series are to communicate clearly verbally and in writing. Below is a listing of objectives:

- Organize all written or verbal communication in a logical manner
- Address all communication at the level appropriate for the audience
- Use correct grammar, punctuation, spelling, style, and formatting conventions in the preparation of all written communications
- Speak clearly and distinctly
- Use public speaking skills to speak effectively in large and small group situations
- Use knowledge of the applicability of specific visual aids to enhance the effectiveness of communications
- When appropriate, use persuasive communication techniques effectively

- Prepare all communications so that they reflect a positive image of pharmacy

Preceptors

The resident will require precepting for each seminar they present. Any other selections must be approved by the resident's RAC mentor. Below is a listing of the types of preceptors for each seminar:

- All seminars (proposal, writing, and results)
 - A member of the faculty from the Department of Pharmacy Services or University of Michigan College of Pharmacy must serve as the resident's preceptor for each seminar and physically attend the respective event they precept or send an expert designee if they cannot attend.
- Research seminars (proposal and results)
 - The resident's primary research advisor will serve as their preceptor of the research seminars.
- Writing project seminar
 - The co- author of the resident's writing project will serve as the preceptor of the writing project presentation.

Seminar Announcement and Evaluations

The topics of the presentations will be publicized so that College of Pharmacy faculty, hospital staff, and other interested persons may attend. Each resident presentation will be evaluated on a standard form by all persons in attendance. These evaluations will be discussed with the resident's preceptor and mentor(s).

For the Seminar Evaluation Form, see Appendix D

G. Teaching Responsibilities

Appointment Process

All residents will obtain adjunct clinical faculty appointments at the University of Michigan College of Pharmacy. Applications will be completed during orientation.

Assignments of Required Teaching

Dissemination of teaching courses is completed prior to the residency year and assignments are rotated annually. This is coordinated by the residency teaching coordinator and associate chair of the College of Pharmacy.

Residents may not request specific courses to teach. Residents may switch their teaching responsibilities but it must be approved by their RPD and submitted to RAC.

Below is a listing of example courses residents may teach in:

Semester	Course Number	Course Name
Fall	P501	Introduction to Pharmacy
	P504	Pharmacy Practice Skills I
	P506	Patient Care and Communication
	P602; P702	Therapeutic Problem Solving
	P703	Health Care Outcomes
	P723	Pharmacy Practice Skills III
Winter	P512	Self-Care
	P514	Pharmaceutical Care
	P516	Healthcare Systems
	P612; P712	Therapeutic Problem Solving
	P616	Health Systems
	P733	Pharmacy Practice Skills IV
	P727	Career and Professional Development
	P557	Drug Abuse in Sports
	P767	Critical Care Elective

Note: These courses are subject to change and resident expectations depend on each course. The resident will receive all information during orientation.

Direct Patient Care Responsibilities While Teaching

During resident teaching experiences, pagers should be covered by primary preceptor or other pharmacist designated during teaching hours and the respective medical team should be notified of the temporary coverage changes. Fellow residents will cover the code pager when the resident is assigned code coverage- this cross-coverage will be coordinated by the resident.

Resident Expectations

Residents are expected to complete the following:

- Reach out to course coordinator prior to semester starting to begin dialogue regarding expectations
- Each course has primary responsibilities, which will be distributed by the teaching coordinator during orientation. There are likely additional opportunities available. If you are interested in exploring ADDITIONAL teaching opportunities, please inform the course coordinator. There will be additional opportunities presented by the teaching coordinator as well during orientation.
- Notify course coordinators of any expected absences
- Residents are not expected to participate in class responsibilities outside of scheduled class time (this does not include grading or prep work)
- The expected time commitment is 2-3 hours/week in class and 1-2 hours of grading per week. If you are taking longer than this, please speak to the course coordinator.

Course Coordinators Expectations

In order to help ensure a mutually beneficial resident teaching experience, course coordinators should abide by the following:

- Once prepared, share the course syllabus/schedule with the resident's RPD and the resident
 - Clarify the resident teaching expectations with regard to day and time of weekly teaching (about 5 hours/week to include in class and prep/grading time)
 - Describe the anticipated role of the resident in your course
 - Encourage the RPD and resident to communicate early about any additional teaching opportunities they would like to explore within the course based on the topic schedule. Note: These additional opportunities could help support attainment of the teaching certificate
- Ensure you are clearly communicating/reinforcing expectations as well as understanding additional teaching opportunities the resident would like to participate in
- Clearly communicate with course faculty in advance to understand what support they need from the resident on their assigned day in the classroom
- Work with your faculty to make suggestions on how to engage the residents in the sessions in which they are assigned. For example:
 - Common tasks
 - Facilitating a case discussion with the students
 - Define who is responsible for creating assignments in Canvas and entering grades
 - Describe what lab set up is required
 - Grading assignments

- Additional tasks to further engagement
 - Updating cases
 - Writing exam or assessment questions
- Tasks will vary depending on the needs of the course
- As course coordinator, you should know the expectations and needs of individual faculty with regard to their use of the pharmacy residents and ensure the load of five hours every week is not exceeded
- Provide feedback to your resident halfway through and at the end of the semester

Clerkship Preceptorship

Residents may have the opportunity to be the primary preceptor for pharmacy students on at least one inpatient acute patient care service. Precepting goals and objectives will be set by the rotation preceptor upon discussion with the resident.

Optional: Teaching Certificate

Residents have an optional experience to receive a teaching certificate with the University of Michigan College of Pharmacy.

In order for a resident to receive a teaching certificate from the University of Michigan Health Systems pharmacy Residency Advisory Committee (RAC), the resident must complete the following criteria:

- Participation in 75-80% of the Teaching Discussion Series, hosted by the University of Michigan College of Pharmacy
 - Attendance at continuing education courses/seminars/lectures outside of the Teaching Discussion Series (e.g., CRLT, ASHP, ACCP, AACP) may also count towards (or in place of) topics presented during the discussion series, at the discretion of the coordinator of the discussion series
 - Resident must lead at least 1 of the Teaching Discussions
 - The discussion series will be held virtually via Zoom with asynchronous prework prior to session
- Completion of a RAC-approved teaching rotation
 - Available teaching rotations
 - Traditional teaching rotation
 - Month block or longitudinal
 - Clinical faculty teaching rotation
 - Teaching specific topics that are applied to direct patient care that rotation
 - Month block rotation

- Academic administration rotation
 - Month block rotation
- All rotations will meet the same objectives included in ASHP elective objectives with different emphasis/focus based on the type of rotation
- Submission of a teaching portfolio, which must include the following items:
 - Self-reflection narrative of teaching strengths and areas of needed improvement
 - Teaching philosophy
 - 3 examples of the resident's teaching accomplishments (e.g., syllabus, CE presentation slides, active learning exercises, quizzes, exams)
 - A list of Teaching Discussion Series sessions attended (or equivalent experiences, as defined above)
 - A description of teaching activities completed which are deemed equivalent to a teaching rotation (if the resident did not complete a teaching rotation)
- Participation in a minimum of 2 admissions interview sessions, ideally one per semester (if available)
- Residents must complete the requirements for a teaching certificate within one academic year (July to June)
- Residents must submit teaching portfolios to the RAC co-chairs in order to be considered for receipt of a teaching certificate
- Participating residents will be assigned a mentor (consisting of the one of teaching series coordinators) to guide them through the program and ensure progress and achievement of the requirements

H. Code Blue Response

ACLS Certification

All PGY1 pharmacy practice residents are required to be ACLS certified. ACLS certification is required before residents are allowed to respond to codes by themselves.

PALS Certification

PGY2 residents in Pediatrics and Emergency Medicine are required to be PALS certified.

There may be opportunity for additional PALS certification for interested PGY1 residents. If a PGY1 resident is interested in PALS certification, they must be ACLS certified prior to orientation and inform the Residency Coordinator of their interest in PALS certification. If a PGY1 interested in PALS certification does not have ACLS certification prior to July orientation, their request will be brought to RAC for a formal approval.

Resident Code Pager Expectations

Residents will be assigned in weekly blocks code blue pager coverage. The schedule is maintained by the Emergency Preparedness/Code Pager Committee (EPCP) Chair. Any major changes to the schedule must be communicated and coordinated by the EPCP chair.

Below are the expectations for coverage:

- The resident must remain in University Hospital from 0700 to 1600 on Monday through Friday to respond
 - You may still attend/schedule meetings, presentations, etc in UH, CVC, Taubman, Cancer Center, or UH South as long as you can respond to a code within a reasonable time
 - You cannot be holding the pager if:
 - You are on your Pharmacy Operations rotation
 - You are offsite for the entirety of the time you are on code coverage (ie: out of town, on medication use policy rotation, off-site ambulatory rotation, etc)
- The resident code pager is also assigned during weekend/holiday resident coverage
 - During day shift (0700-1530)
 - Any one (1) clinical dayshift pharmacist (resident or specialist) shall respond to the code with a supplemental box; a backup pharmacist from the dispensing satellite should also attend
 - During afternoon shift (1530-2100)
 - The clinical evening (CE) pharmacist (or LACE if still there) shall respond to the code with a supplemental box; a backup pharmacist from the dispensing satellite should also attend if able
- The resident must carry the red pager with volume on at all times

- The resident must respond immediately to all codes called in UH, CVC, Taubman, Cancer Center, or UH South
 - Residents are not responsible for codes in Mott/C&W
- Residents will be provided back-up by pharmacists but are expected to be primary
 - If no pharmacist back-up arrives, the resident must call pharmacy for back-up
 - Identify and communicate with the pharmacist backup if you have any questions or need any assistance
- Residents must stay for the entire duration of the code or until dismissed from the lead physician
- Respond to any follow-up from the code evaluation services as appropriate (may or may not contact you)
- Reach out to Emergency Preparedness/Code Pager Committee (EPCP) Chair, RPD, or RPC if code pager duties are impacting your ability to be successful in residency for any reason

Documentation After a Code Blue

PGY1 residents must document learning points in the on-call report.

The resident must also send a CANOPy form to the pharmacist preceptor back-up for feedback and send the completed form to their RAC assigned mentor

Orientation to Code Blue Response

An orientation to the contents of the cardiac arrest drug box, as well as pharmacist responsibilities at an arrest will be provided during orientation through a Code Response Training Class.

I. Staffing

Commitment

- PGY1 Pharmacy (including PGY1 of IDS and PGY1 of HSPAL)
 - 2 weekends per month divided between clinical day, clinical evening, and staffing operations starting in August. Staffing could include both adult and pediatric patients.
 - An additional 3 clinical evening shifts are required for each PGY1 pharmacy and IDRP resident from March until June (1 per resident per month)
 - For the month of July, PGY1 residents will be assigned 2 training weekends consisting of 1 clinical weekend and 1 operations weekend
- PGY2 Specialty residencies
 - 15 weekends per year of pharmacokinetic/anticoagulation/parenteral nutrition coverage starting in August for the majority of specialty programs
 - Oncology PGY2: weekend coverage will include infusion center staffing one weekend per month
 - Emergency PGY: weekend coverage includes adult or pediatric emergency rooms
 - For the month of July, PGY2 residents will be assigned to train with a clinical pharmacist on one weekend

Holidays

- Residents will work equal weekends and holidays each within their respective category (PGY1 or PGY2)
- Each resident will work 1 major holiday block and 1 minor holiday
 - Major holidays: Thanksgiving Day, Christmas, New Year's Day
 - Each holiday block consists of 2 weekend days and 3 weekdays that occur around and on the holiday. These exact dates will shift slightly each year depending on the day the holiday falls.
 - "Gap days" between Christmas Block and New Year's block
 - These are 2 days that are identified between the two blocks in December
 - It is required for residents to be physically present during gap days on campus. Residents will staff 1 day and the other day will be on research rotation
 - Residents may take PTO ONLY on their research day and must follow time off request process.
 - The residents will all work one major holiday block and have the other 2 holiday blocks off
 - Minor holidays: Independence Day (returning residents only), Labor Day, Memorial Day

- Each holiday block consists of 3 days that occur around and on the holiday. These exact dates will shift slightly each year depending on the day the holiday falls. The residents will all work one minor holiday block and have the other 2 minor holiday blocks off

Types of Shifts for Staffing

- Operational staffing shift for residents is an eight-hour shift plus lunch/dinner break. Current hours are:
 - Day shift: 7:00 to 15:30
 - Evening shift:
 - On Operations rotation: 15:30 to 00:00
 - On weekends: 12:30 to 21:00
- Clinical staffing shift times:
 - Day shift: 7:00 to 15:30
 - Evening (also known as CE): 12:30 to 21:00

Operations Schedule Coordination

The RPC will create the schedule for July and August for both operations and pharmacokinetic/anticoagulation/parenteral nutrition coverage. The returning PGY2 HSPAL residents will be responsible for the remainder of the schedule (September through June). They will coordinate scheduling with the RPC, a pharmacy manager, and the scheduler as needed. The final schedule will be given to the Team Leads/Assistant Directors who will post it in the electronic scheduling system.

Trading Shifts

Residents will be allowed to trade weekends (clinical for clinical, CE for CE, and operations for operations when possible) but must communicate the changes to the appropriate preceptors and be changed by the requester on shared drive resident weekend schedule. Trades should be communicated to the scheduler to ensure it is added to the electronic scheduling system.

Feedback on Staffing

Residents will be evaluated in PharmAcademic® for clinical and distributive components via the CANOPY longitudinal rotation.

J. Clinical On-Call Experience

Overview

- Pager: #5467
- Scheduling
 - After resident weekend schedule available, on-call coordinator will attempt to assign PGY1 residents on-call shifts to coincide with resident's CE or clinical day weekend shift
 - On-call shift may coincide with code pager week
- Shift: Monday 08:00 – Monday the following week 07:59

Structure and Resident Responsibilities

- The PGY1 on-call will sign into the on-call pager and be responsible for all clinical questions that are received during weekday off-hours (i.e. after 3:30 PM) and during the weekend (24/7)
 - Clinical pharmacists who encounter non-urgent questions deemed useful for clinical on-call may page the resident on-call during the weekday daytime hours to explore the question after 3:30 PM that day.
- Appropriate clinical questions may be defined as those that require a review of primary literature or in-depth review of clinical resources, clinical status of the patient, and/or would result in a significant delay in workflow if handled by the clinical staff in-house during off-hours.
 - Normal workflow, basic PK, or anticoagulation questions are not appropriate
 - Use of residents to double-check enrollment in REMS programs is not appropriate

PGY2 Backup Responsibilities

- One PGY2 will be scheduled as backup per week
 - PGY2 residents excluded from this responsibility are: Administration, Ambulatory Care, Informatics, Pain/Palliative Care, and Research (IDS)
- The PGY1 may contact the assigned PGY2 back-up to review responses prior to providing an answer to the medical team if assistance is required with complex questions
 - Use of the PGY2 backup is expected during the first two on-call segments covered by a resident
 - PGY1 residents should touch base with the PGY2 backup prior to beginning their on-call week (i.e. to determine best method of contact, if the PGY2 would like to review answers prior to submission of the on-call report, etc.)

Documentation

- Questions and answers need to be documented in the Excel spreadsheet located in the On-Call folder on the resident shared drive (Resi:Year-Year)

- A summary of all clinical interventions and codes attended during the shift should be documented in the on-call report
- A minimum of 3-4 interventions will be required for each resident (enough to fill an hour of discussion)
 - If the resident on-call has difficulty attaining this number of cases, he/she will discuss with the backup PGY2 resident and include cases from rotation or cases assigned by the PGY2 backup. Contact the on-call clinical coordinator if there is still difficulty obtaining the required number of cases.
- Documentation should be de-identified when emailed, but include the unit/service such that primary pharmacists in-charge of that service may follow-up as appropriate
- Follow-up with the clinical pharmacist covering the patient during the clinical day after answering a question is expected and should occur either verbally or via email so that the resident can receive adequate feedback on interventions
- Documentation in the on-call report should be very brief and does not require any references to primary literature for purposes of documentation in the excel spreadsheet.

Emailing On-Call Report

Email the completed on-call report to “PHARM-ON-CALL” (includes Pharm-Clinical, Pharm-Resi, and clinical generalists) and CC the assigned preceptor moderator for that week. The assigned preceptor moderator is found on the on-call schedule in the shared drive.

Overall, the email invitation to attend on-call should include:

- Completed excel spreadsheet with intervention documentation
- Location and time of the meeting
- Preceptor moderator
- Who will be the next PGY1 resident on-call and the on-call pager number (5467)

On-Call Discussion

- The Tuesday following an on-call shift, the residents will meet from 12:00-13:00 and discuss clinical questions from the previous week.
- A minimum of one clinical preceptor will act as moderator as well as the PGY2 backup.
 - The resident on-call coordinator will be responsible for contacting preceptors to obtain availability and creating a schedule for the year.
 - All preceptors are invited to attend all sessions and will be distributed the schedule at the beginning of the year.
- Attendance for PGY1: **REQUIRED**
 - In the event of ANY anticipated absence (pre-approved or otherwise) or to request an absence, contact the resident on-call coordinator AND on-call clinical coordinator

- Pre-approved absences include: Pre-P&T and P&T while on Pharmacy Operations/Med Use Policy rotation, days where the resident is off-site for Med Use Policy (MUP)
 - If the resident is on-site for MUP, they should attend on-call report
- Attendance for PGY2: Highly encouraged and REQUIRED if they were the back-up
 - Ultimately attendance is at the discretion of the PGY2 RPD
 - If the PGY2 backup cannot attend, the program RPD must be alerted
- The PGY2 backup will run the case discussion and prompt all residents for input on cases (round table format for discussion). If the PGY2 backup cannot attend, the preceptor moderator will run the case discussion.
- The use of computers by PGY1s during on-call report is highly discouraged with the exception of the PGY1 presenter

Preceptor Moderator Responsibilities

The moderator needs to facilitate a meaningful discussion where the goal is NOT for the resident to become the expert in the area or literature for which the question is asked, but rather to discuss their clinical approach, have other residents engage in that discussion, and for the preceptor to share their critical thinking process when presented with a unique patient case that may be out of their realm of specialty.

Evaluation

- The preceptor moderator and PGY2 backup will provide feedback to the on-call resident regarding his/her performance privately during the last ten minutes of the on-call discussion
- The PGY2 backup will complete a CANOPy evaluation form for PGY1s for the week. The CANOPy form will also incorporate a brief typed summary (by the PGY2) of the moderating preceptor's verbal feedback from on-call report

Preceptor Coordinator Responsibilities

Concerns about the clinical on-call program as a whole should be directed to the resident on-call coordinator and the on-call clinical coordinator. The clinical coordinator responsibilities include:

- Maintain quality of on-call program and spearhead changes along with the resident on-call coordinator
- Maintain consistency and quality of resident on-call reports each week
 - Appropriate format followed
 - Report submitted on time
 - Ensure PGY2 evaluations of PGY1s via CANOPy forms are completed
- Ensure resident participation and attendance at on-call discussions
- Ensure appropriate assigned preceptor participation each week
- Assist with the guidance of on-call discussion and ensure all attending PGY1 residents participate

- Provide feedback to PGY1 residents regarding on-call reports and quality of discussion each week
- Take resident and preceptor feedback to RAC regarding on-call program, as required
- Provide logistical support for residents in scheduling and other issues, as needed
 - Work in conjunction with and mentor the resident on-call coordinator
- Ensure on-call discussion rooms are booked for the upcoming calendar year

Resident Coordinator Responsibilities

Concerns about the clinical on-call program as a whole should be directed to the resident on-call coordinator and the on-call clinical coordinator. The resident on-call coordinator responsibilities include:

- Work in conjunction with the on-call clinical coordinator
- Create on-call schedule for PGY1 residents, PGY2 backups, and clinical preceptor moderators
- Reach out to preceptor moderators for availability and schedule
- Send out Outlook calendar invitations for on-call report

K. RAC Meeting Attendance and Minutes

Residents will be scheduled to be the RAC secretary for 1 meeting throughout the residency year starting in August. The purpose of being RAC secretary is to provide the resident's exposure to how programs are designed and conducted.

The residents have two responsibilities when they are secretary and will work with the RPC to prepare:

- Agenda preparation
 - The resident will elicit agenda items from RAC members and chief residents about 2 weeks prior to the RAC meeting
 - The email is to be sent to PHARM-RAC, Pharm-RESI, and Alexandra Lin
 - The resident must confirm the room number and call-in information is available through the calendar invite
 - Once all agenda items have been collected, send proposed agenda to the RPC by noon on the Monday prior to the next RAC meeting for approval
 - Once approved, the resident is to send the final agenda and all submitted documents via email to the above addresses
 - Send no later than the end of the day on Tuesday before the RAC meeting so everyone has about 4-5 business days to read up on proposals
- Minutes preparation
 - Once minutes are written, send a draft to the RPC for approval/editing
 - Once approved by the RPC, send an email to the above addresses
 - Approved minutes will be posted to the pharmacy clinical webpage

L. Meeting Attendance

Recruitment Showcases (if available due to pandemic and funding)

There are four residency recruitment showcases which require resident participation. Attendance at the Southeastern Michigan Society of Hospital Pharmacists (SMSHP) Residency Showcase in October/ November, the Western Michigan Society of Hospital Pharmacists (WMSHP) in October and the College of Pharmacy Career Gateway in October/November at the University of Michigan is required of residents that are assigned to attend.

Recruitment showcase assignments are completed during orientation by the Chief Residents.

Revisions of recruitment materials must be completed before these showcases; pamphlets and brochures are available, but may need updating. All residents are responsible for organizing, preparing, and transporting showcase materials.

Meetings

All residents must attend and present at meetings when available. These meetings include:

- Poster presentation (can be at College of Pharmacy, ASHP Vizient, or another local, state, national conference based on residency program)
- Great Lakes Pharmacy Residency Conference: Late April (will be virtual)
 - All residents (except PGY2 Pain and Palliative Care) present an oral platform presentation
- PGY2 specialty conference (ie: HOPA, SCCM, ICAAC, etc) if available

Any deviations from the meeting attendance must be brought to RAC for approval by the RPD.

M. Resident-Run Committees

PGY-1 residents are expected to be involved in two committees, while PGY-2 residents are expected to be involved in at least one committee. Residents will be assigned to the committees based on areas of interest by the Chief Residents. Most committees have a preceptor chair to facilitate and act as a support system. Restructuring of committees and responsibilities is done by the chief residents in conjunction with the RPC.

Below is a brief description of the available committees:

College of Pharmacy / Teaching Series Committee

- Purpose
 - To organize and communicate the requirements and responsibilities for all interested residents to achieve the teaching certificate offered by Michigan Medicine, potentially including VA and St Joe's residents
- Responsibilities
 - Organize teaching series lectures, including topics, lecture schedule, location, etc
 - Ensure all requirements are met for all interested residents to earn certificate
 - Communicating with the committee preceptor and other college of pharmacy faculty to resolve issues and plan lectures and other teaching certificate responsibilities

Community Service Committee

- Purpose
 - To organize community service events for the residency class to participate in. All residents are required to participate in at least one event per year.
- Responsibilities
 - Organize at least 2-3 community service events spread throughout the year

Emergency Preparedness/Code Pager (EPCP) Committee

- Purpose
 - Plan and manage the resident code pager responsibilities throughout the year as well as provide emergency preparedness training and communication as needed
- Responsibilities
 - Organize the resident code pager schedule
 - Coordinate ACLS +/- PALS training for incoming residents
 - Coordinate Michigan Medicine specific code response training with MM Committee
 - Update residents on emergency preparedness measures specific to Michigan and Michigan Medicine
 - Facilitate any emergency preparedness training or communication that occurs during the year

Great Lakes Pharmacy Resident Conference Committee (GLPRC)

- Purpose
 - Plan the GLPRC trip to Purdue University
- Responsibilities
 - Arrange hotel accommodations for two nights in West Lafayette, IN
 - Inform residents of the deadlines for abstracts and presentation slide submission
 - Reserve University-owned cars for transportation to and from Indiana
 - Make a dinner reservation for the whole group

Historian Committee

- Purpose
 - To maintain documentation of resident activities throughout the year through the use of multi-media in a history committee book and to keep resident alumni informed of annual residency events (e.g. Annual Report)
- Responsibilities
 - Every May/June, update history committee book with residents' post-residency plans and personal email addresses
 - Works with social committee to compile pictures from various social and residency events/activities
 - Send out email to alumni for updates

Midyear Committee

- Purpose
 - This committee handles everything that deals with Midyear. From the booking of hotels, to the event planning during Midyear, to giving instructions on reimbursement, this is your one stop shop for making sure Midyear goes smoothly for residents
- Responsibilities
 - Reserve a block of rooms when ASHP makes it available
 - Send out reminders preparing for midyear
 - Re-imbursement instructions
 - Registration instructions
 - Poster/abstract deadlines
 - Send out instructions for how to print posters
 - Plan the resident dinner while at midyear
 - Set up PPS booth assignments
 - Get booth materials organized and shipped to Midyear

Newsletter Committee

- Purpose

- The Newsletter Committee submits one article for publication in the December issue of the MSHP Monitor (MSHP = Michigan Society of Health-System Pharmacists, a publication of the Michigan Pharmacists Association)
- The Committee also puts together the year-end newsletter that is distributed to resident alumni
- Responsibilities
 - MSHP Monitor submission by November 1st
 - Year-end alumni newsletter by May 1st

On-Call Coordinator

- Purpose
 - The coordinator will facilitate on-call report scheduling for the PGY1 residents and PGY2 backups
 - The coordinator helps ensure appropriate preceptor attendance and mentorship at each on-call report
- Responsibilities
 - Contact preceptors to obtain availability for on-call report
 - Create on-call report schedule and assign residents to each on-call shift
 - Send out Outlook invitations with room locations for each on-call report
 - Track attendance of PGY1 residents at on-call report as needed
 - Troubleshoot any logistic issues with on-call scheduling

Orientation and Training Committee

- Purpose
 - The committee works with the residency coordinator to ensure feedback from previous year(s) is constructively incorporated into next year's orientation and to streamline training for new residents
 - The purpose is to serve as a guide for PGY1s and incoming PGY2s through direct mentorship and by providing resources
- Responsibilities
 - Create/update residency survival [pocket] guide
 - Participate in orientation debrief
 - Provide consultation to residency coordinator on the orientation schedule
 - Communicating with new residency class regarding NAPLEX and MPJE materials and deadlines
 - Provide information on housing in Ann Arbor
 - Organizing office seating chart(s)
 - Offering tours during orientation
 - Organizing resi-buddies

Residency Trip Committee

- Purpose

- To coordinate the annual residency exchange program
- Responsibilities
 - Coordinate the annual residency exchange (year-long activity) which includes planning/organizing the following:
 - Site
 - Budget
 - Transportation
 - Food
 - Social
 - Lodging

Social Committee

- Purpose
 - The purpose of the social committee is to organize events to ensure the residency class spends time together outside of work
 - It is a way for the group to bond and get to know one another better in a more relaxed setting
- Responsibilities
 - Create a monthly plan of activities residents can attend as a group
 - At the end of the year, this committee organizes an event to welcome the incoming class

Webmaster

- Purpose
 - Maintain the pharmacy residency website, and occasionally handle other tech issues as they arise
- Responsibilities
 - Collect information from all the residents for their resi website profiles
 - Arrange for individual headshots to include with the profiles
 - Ensure preceptor lists are current and accurate on the resident website
 - Upload resident CE presentations to the appropriate MBox folder

End-of-Year Banquet (EOYB) Committee

- Purpose
 - Plan and host the end of the year banquet in mid-late June to honor all residents completing the residency program and thank preceptors for their support of the program
- Responsibilities
 - Choose and reserve a venue for the banquet: order food (usually buffet style), cash bar, any room set up/equipment needed
 - Work with John Clark to set a budget for the banquet

- Send out invites to residents and preceptors
- Purchase gifts for individuals at the banquet
- Choose a preceptor to give an address
- Coordinate resident superlatives
- Work with RAC to determine order of events and awards/certificates to be given

End-of-Year Video

- Purpose
 - To summarize the year's residency experience from the resident perspective in video format to be shared at End of Year Banquet
- Responsibilities
 - Create a master video (from day 1 of residency) that's 20-30 minutes documenting the year

Wellness Committee

- Purpose
 - To help identify residency wellness activities for the class to participate in
- Responsibilities in conjunction with preceptor chair(s)
 - Collect resident wellness survey data (August/September) to identify areas the residency class wants to focus on annually
 - Identify wellness activities for the class to participate in based off survey data

3. Evaluations

All evaluation forms (except where noted) are located in PharmAcademic®.

A. Assessment of Baseline Skills and Interests

Prior to the scheduling of rotations, the resident will complete the Entering Objective-Self Evaluation form.

After reviewing the Residency Program specific goals and objectives, and after meeting with all preceptors, the resident will be assigned a mentor from RAC. The resident will complete the ASHP Entering Interests form and discuss with the RAC mentor.

B. Quarterly Evaluations

Each quarter (1st, 2nd, 3rd, and 4th), a quarterly Development Plan will be completed by the RAC mentor for each resident. The Development Plan will incorporate feedback from the resident, writing and research project preceptors, and other preceptors that the resident trained/interacted with during but not limited to weekend CANOPY and staffing shifts, duty hours, rotation preceptors and Code experiences and discussed with RAC during the respective quarter.

The resident will set up a meeting with their RAC mentor, resident appointed mentor and writing and research preceptors quarterly, to discuss progress, goals and areas for improvement. This form will be dated and timed to the meeting time and all participants will be added as being at the meeting. The form once completed will be uploaded into the residents PharmAcademic file.

C. Rotation Evaluations

At the end of each rotation, the preceptor and resident will evaluate each other's performance on the rotation. Once the RPD deems the resident can effectively self-evaluate, the resident will no longer be required to continue with the self-evaluation.

The resident and the preceptor will complete the appropriate evaluation(s) in PharmAcademic® and verbally review with each other. A rotation-specific summative evaluation will be used by the preceptor to evaluate the resident's progress on rotation-specific goals.

D. Evaluation Scale and Key

Scale	Terminology	Description
1	Unsatisfactory Progress	Resident requires significant modeling (direct preceptor involvement) in order to solicit appropriate patient care and/or results on residency requirements
2	---	---
3	Beginner (Needs Improvement)	Resident requires and accepts coaching on patient care and other residency requirements. Often the level most residents will achieve immediately following their Doctor of Pharmacy.
4	---	---
5	Proficient (Satisfactory Progress)	Resident is making satisfactory progress for that point in the residency year. The resident requires less coaching and is able to complete residency expectations. The preceptors are able to facilitate learning often rather than direct modeling and coaching
6	---	---
7	Achieved for Rotation (ACH)	---
8	Achieved for Residency (ACHR)	Resident appropriately completes patient care or other residency requirements at a level appropriate for someone completing either a PGY-1 or PGY-2 residency year. Preceptors are able to facilitate the learning of the resident completely rather than modeling or coaching.
9	---	---
10	Outstanding	This resident is performing at a level that is equal to a seasoned, established preceptor. This should probably never be achieved in PGY-1 and achieved rarely in PGY-2.

E. Writing Project Evaluations

The resident's writing project will be evaluated quarterly via PharmAcademic® evaluations and quarterly evaluations. At each quarterly assessment, the resident will also evaluate his/her project preceptor. This evaluation is shared with the preceptor and the resident's mentor and/or residency program director.

F. Research Project Evaluations

The resident's research project will be evaluated quarterly via PharmAcademic® evaluations and quarterly evaluations. At each quarterly assessment, the resident will also evaluate his/her project preceptor. This evaluation is shared with the preceptor and the resident's mentor and/or residency program director. These evaluations are to be verbally reviewed with each other.

G. Seminar Evaluations

There are three main seminars that are formally evaluated throughout the residency year.

- Research project proposal
- Writing project/CE presentation
- Research results presentation

All seminars use the seminar evaluation form (see Appendix C).

H. CANOPY Evaluations

There are four separate evaluations tied to the CORE (Clinical and Operations Residency Experience) learning experience:

- Two clinical weekend evaluation forms
- One clinical on-call evaluation form
- One code blue evaluation form

Skills are assessed by preceptors during each weekend worked, on-call experience and code experience. The process for obtaining timely feedback is as follows:

- Clinical weekend evaluation forms
 - To be completed each clinical weekend the resident works
 - One form for the clinician who worked with the resident that weekend
 - One form to be given to a clinician who will be following patients during the week where significant responsibility or intervention over the weekend. The resident is responsible for ensuring that they get feedback in all areas through the variety of preceptors asked to complete these evaluations
- Clinical On-Call evaluation form
 - To be completed each shift the resident is on call and receives a clinical question by the PGY-2 resident back-up
- Code evaluation form
 - To be completed each week by one pharmacist that attended a code with the resident during that week

Resident Responsibilities with CANOPy Evaluations

- Ask the pharmacists/preceptors to complete the evaluation forms and provide them with the appropriate form and the name of their RAC Mentor
- Notify their RAC Mentor which pharmacists/preceptors should be sending them evaluation forms for each experience at the beginning of the week the evaluation form should be completed

Pharmacist/Preceptor Responsibilities with CANOPy Evaluations

- Complete the form and return it to the resident and resident's RAC Mentor by the Friday following the experience (weekend, or end of on-call or code week) via email

I. RAC Assigned Mentor Responsibilities with All Evaluations

- Monitor the resident's progress through all evaluations and follow up with the resident and/or preceptors regarding any issues identified in the evaluations
- Ensure they receive the evaluations in a timely manner. If the evaluations are not received in a timely manner despite efforts of the RAC Mentor, bring to the attention of John Clark
- Incorporate these formative evaluations into quarterly summative Development Plans:
 - Quarterly PharmAcademic® evaluations on goals and objectives above
 - Summative Self-Evaluation by Resident
 - Summative Evaluation by RAC Mentor
 - Learning Experience Evaluation by Resident
 - Preceptor Evaluation by Resident
 - To include feedback on RAC Mentor and feedback on other preceptors they have worked with throughout these experiences
 - Clinical on-call will be evaluated quarterly

J. Staffing Evaluations

This evaluation should be completed after each staffing experience in the 6th floor pharmacy. The process is as follows:

- The evaluation will be completed by a pharmacist staffing with the resident
- Residents should request that the pharmacist return completed evaluations to Kristen Schaeffler and the resident
- Evaluations should not be forwarded to the RAC mentor unless the resident is not improving at the desired rate as they are not responsible for PharmAcademic® evaluation for this experience

K. Teaching Evaluations (see appendix F)

- An optional teaching evaluation is available for course coordinators to provide feedback to residents during their teaching experiences
- This evaluation could be uploaded into PharmAcademic for reference

4. Early Commitment Process

The decision regarding participation of each PGY2 residency program in the early acceptance process will be left up to the individual programs. See Appendix E for early commitment process diagram.

PGY1 Resident Eligibility Determination

RAC will meet to discuss whether the current PGY1 residents are eligible candidates for early commitment on the last RAC meeting in October. RAC will determine the acceptability of each resident's candidacy based upon his/her ability to meet deadlines, feedback from his/her project preceptors (writing and research), monthly rotational evaluations and feedback from preceptors of longitudinal experiences (e.g. kinetics, operations, ambulatory care).

Resident Responsibility

Once a PGY1 resident is deemed an eligible candidate for the early commitment, the resident should send a formal statement of intent to the program director(s) of the program(s) for which the resident would like to apply. A resident may apply to more than one PGY2 program.

Residents are encouraged to notify the program directors of the PGY2 residencies for which they are interested and/or intend to apply for early commitment as soon as possible in order to facilitate interview scheduling.

Pre-Midyear and Post-Midyear Early Commitment Options

There are two timeline options for the early commitment process and is up to each PGY2 RPD. If there are multiple interested candidates, it is also up to the discretion of the PGY2 RPD to offer early commitment to the resident(s) versus attending ASHP Midyear to recruit further.

An interview must be conducted to evaluate the PGY1 resident's candidacy. PGY2 RPDs are encouraged to discuss each candidate's performance with his/her project and rotational preceptors. An assessment of each applicant's candidacy must be documented in writing. The interview process must be completed by Monday of the week following the Midyear meeting but may be completed in advance in light of time and schedule constraints.

- Pre-Midyear early commitment
 - If offered, residents may early commit as early as the date of the last RAC meeting in October and will not need to participate in PPS if they chose to early commit at this time
 - If the resident wishes to move forward in the early commitment process, they must accept the offer no later than the Monday after Midyear. The timeframe will be specific by the PGY2 RPD.
- Post-Midyear early commitment

- PGY2 RPDs have the option of interviewing eligible Michigan Medicine PGY1 resident(s) but still attend Midyear to recruit. This allows the Michigan Medicine PGY1 resident(s) to also participate in Midyear recruitment for the programs they are interested in pursuing [ie: personnel placement service (PPS)].
- PGY2 RPD must offer early commitment to the resident no later than Monday after ASHP Midyear
- If the resident wishes to move forward in the early commitment process, they must accept the offer no later than the Tuesday after Midyear meeting by the end of the business day

Actions with Accepting or Declining Early Commitment

- Both PGY2 RPD and resident accept early commitment
 - The signed early commitment agreement must be completed and sent by the date specified annual by the National Matching Service (NMS) and ASHP
- Resident declines or is not offered the early commitment offer
 - If a PGY1 resident declines an offer for a residency position, the PGY2 director of that program may make an offer to another PGY1 resident who was also deemed an appropriate candidate for the early acceptance program and who completed the interview process for that program
 - If a PGY1 resident is not offered or declines an early acceptance position, the resident will be permitted to apply to a Michigan Medicine PGY2 program through the formal application process without prejudice or bias.
 - Additionally, should a PGY1 resident who did not participate in the early acceptance program decide to apply to a Michigan Medicine PGY2 program, their candidacy will also be considered without prejudice or bias.

5. Chief Residents Responsibilities

Description

The Chief Pharmacy Residents are two pharmacy residents (a PGY1 and a PGY2) who coordinate the activities of all concurrent pharmacy residents (Pharmacy Practice and Specialty).

Qualifications

For the Chief Pharmacy Resident positions, the following are minimum criteria that should be considered to qualify:

- Must be a pharmacy resident for the full fiscal year for which he/she is a Chief Resident
- Has the following qualifications as evidenced through interview, previous accomplishments as documented on the curriculum vitae, letters of recommendations and/or previous evaluations:
 - Leadership skills
 - Good communication skills
 - Ability to work with others and coordinate activities
 - Ability to manage time efficiently
 - Expressed interest in the positions

Nomination

Nomination by current residents is due by mid-July to RAC. Each resident shall individually and confidentially submit to the RPC their choice for the Chief Resident position.

RAC will review the qualifications of the nominees and evaluate whether he/she is qualified for assuming the role of Chief Residents.

It is left to the RAC discretion to accept or reject the nominations. In case RAC finds the nominees to be inapt for the position, or in case there is a conflict amongst the residents on nominations or inability to decide on one nominee, then a Chief Resident will be selected and appointed by RAC considering the qualifications listed above.

Chief Resident Responsibilities

- Attend RAC meetings
 - PGY1 and PGY2 chiefs will attend all RAC meetings
 - They will have 1 vote each at RAC
 - They will not rotate in as secretary
 - Chiefs will disseminate information/decisions from RAC meeting to all residents
 - The PGY1 chief will sit on the Clinical Practice Committee (CPC)
 - The PGY2 chief will sit on the Pharmacy Practice Council (PPC)
- Make and post a schedule for the following activities in the resident's year:

- RAC secretary
- Seminar presentations
- Schedule monthly meetings in conjunction with the department administration assistant for the following meetings:
 - Leadership meetings with CPO/Associate CPO/Directors/RPC monthly lunch meeting with all residents
 - Residents-only meeting (required for all residents to attend)
 - Create an agenda for the meeting
 - Discuss issues to go to RAC, upcoming trips, committee updates, etc
 - Regularly gather feedback on kinetics, teaching, clinical on-call, etc
 - RPC meeting with both chiefs
- Make schedules and book rooms for seminar presentations
- Plan the day if another residency program comes to visit Michigan Medicine residency program
- Help schedule anything else that comes up that requires scheduling
- Residency Committees
 - At the beginning of the year organize the residents into committees based on their preferences
 - Throughout the year follow-up with committees to make sure they are on task

Benefits of Being Chief Resident

Due to the additional responsibilities of the Chief Pharmacy Resident, this individual will be entitled to the following benefits and/or relief from standard resident obligations:

- Not required to serve as RAC secretary
- Role on groups projects limited to oversight and supervision of activities
- Opportunity to develop/refine leadership skills
- More direct involvement in residency program and larger opportunity to help shape the program
- Opportunity to go to a State/National Leadership Conference

6. Corrective Action and Dismissal

Pharmacy residents are expected to perform and behave in a manner consistent with expectations of all other UMHS employees. If a resident breaches these expectations, then the situation and the resident will be managed in the same manner as any other UMHS employee, which can include dismissal. One specific area that may result in dismissal of a pharmacy resident is failure to make satisfactory progress in achieving the goals and objectives of the residency training program.

The following areas will be monitored and subject to escalating corrective action:

- Sick time usage
- Rotation evaluations
 - Following a preceptor evaluation in which a resident is categorized as “less than average” in overall performance, the resident will be required to meet with the RPD/RAC mentor no later than the second regularly scheduled meeting
 - The resident will have to outline and explain the reason(s) for their previous poor performance, concluding with an outline and action plan for correction of previous problem(s)
- Writing project
 - See responsibilities and deadlines in section D
- Research project
 - See responsibilities and deadlines in section E
 - Assuming that the research deadline extension process has occurred through RAC, satisfactory completion of the research project is still expected by June 30th of the residency year
 - Extension of this deadline may be allowed by RAC or RPD upon written request by the resident. Under no circumstance will project deadline be extended beyond June 30th. Compliance is required prior to issuing a residency certificate.
- Theft and moral turpitude
 - A resident who is convicted of theft of a controlled substance or a felony is subject to immediate residency termination and dismissal
- Licensure
 - Disciplinary action will begin from 60-days of hire if pharmacist/controlled substance licensure is not obtained
 - The resident will be dismissed from the program if pharmacist/controlled substance licensure is not obtained by November 1st

7. Duty Hours and Moonlighting

Definitions

Duty hours are defined herein as all patient care/patient care related activities or activities required for the successful completion of the residency program. This includes:

1. Rotation/Patient Care Experiences
 - a. Provision of patient care in all settings (inpatient, outpatient, virtual) or while working from home in accordance with institutional policy
 - b. Patient care related activities necessary to treat patients (e.g. reading for the purpose of informing care decisions)
 - c. Assigned work from a preceptor (e.g. journal clubs and topic discussions)
2. Professional Obligations
 - a. Committee work
3. Scientific Advancement/Research
 - a. Work associated with completion of writing, research, and CE presentation projects
4. Longitudinal Experiences
 - a. Teaching and associated preparation or grading time
 - b. Staffing and clinical weekend activities
 - c. On-call activities: Duty periods during on call include those that are actively responding to a drug information question only
 - d. Leadership and research series participation
 - e. Completion of teaching certificate requirements
5. Other
 - a. Community service
 - b. Internal or external moonlighting

Scheduled duty periods: assigned duties, regardless of setting, that are required to meet the educational goals and objectives of the residency program. These duty periods are usually assigned by the residency program director or preceptor and may encompass hours which may be within the normal work day, beyond the normal work day, or a combination of both.

Moonlighting: Voluntary, compensated, pharmacy-related work performed outside the organization (external), or within the organization where the resident is in training (internal), or at any of its related participating sites. These are compensated hours beyond the resident's salary and are not part of the scheduled duty periods of the residency program.

Continuous Duty: Assigned duty periods without breaks for strategic napping or resting to reduce fatigue or sleep deprivation.

Strategic napping: Short sleep periods, taken as a component of fatigue management, which can mitigate the adverse effects of sleep loss.

Duty Hour Requirements

Residents, program directors, and preceptors have the professional responsibility to ensure they are fit to provide services that promote patient safety. The residency program director (RPD) must ensure that there is not excessive reliance on residents to fulfill service obligations that do not contribute to the educational value of the residency program or that may compromise their fitness for duty and endanger patient safety. Providing residents with a sound training program must be planned, scheduled and balanced with concerns for patients' safety and residents' well-being. Therefore, programs must comply with the following duty-hour requirements:

- Personal and Professional Responsibility for Patient Safety
 - RPDs must educate residents and preceptors about their professional responsibilities to be appropriately rested and fit for duty to provide services required by patients.
 - RPDs must educate residents and preceptors to recognize signs of fatigue and sleep deprivation, and adopt processes to manage negative effects of fatigue and sleep deprivation to ensure safe patient care and successful learning.
 - Residents and preceptors must accept personal and professional responsibility for patient care that supersedes self-interest. At times, it may be in the best interest of patients to transition care to another qualified, rested provider.
 - The RPD must ensure that residents participate in structured handoff processes when they complete their duty hours to facilitate information exchange to maintain continuity-of-care and patient safety.

- Maximum Hours of Work per Week and Duty-Free Times
 - Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all activities described above.
 - Mandatory time free of duty: residents must have a minimum of one day in seven days free of duty (when averaged over four weeks). At-home call cannot be assigned on these free days.
 - Moonlighting (internal or external) must not interfere with the ability of the resident to achieve the educational goals and objectives of the residency program. In general, moonlighting is discouraged for residents.
 - All moonlighting hours must be counted towards duty hours and must not exceed duty hour limits
 - Residents are eligible for moonlighting up to 2 shifts per month only during times not usually scheduled for regular duty hours (i.e. evenings or weekends).
 - Residents should have 10 hours free of duty between scheduled duty, and must have at a minimum 8 hours between scheduled duty periods.

- Maximum Duty Period Length

- Continuous duty periods of residents should not exceed 16 hours. The maximum allowable duty assignment must not exceed 24 hours even with built in strategic napping or other strategies to reduce fatigue and sleep deprivation, with an additional period of up to two hours permitted for transitions of care or educational activities.
- At-Home Call
 - At-home call must not be so frequent or taxing as to preclude rest of reasonable personal time for each resident.
 - Program directors must have a method for evaluating the impact on residents of the at-home call program to ensure there is not a negative effect on patient care or residents' learning due to sleep deprivation or serious fatigue.
 - Program directors must define the level of supervision provided to residents during at-home call.
 - The frequency of at-home call must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks. No at-home call can occur on the day free of duty.

Internal and External Moonlighting Procedures

- Process to pick up shifts internally
 - Residents must complete a Temporary Employment application at UMHS for internal moonlighting hours at the beginning of the residency year with the Pharmacy Department Administrative Assistant. This may take up to 2 weeks to process. The temp status will end after 90 days of inactivity and will need to be renewed at this time to maintain active temporary status.
 - Residents will be included on notices that go out to permanent staff informing them of open shifts and requesting volunteers for picking up additional shifts.
 - The resident will volunteer for the shift(s) by responding to the requestor expressing interest in the shift, and then must follow-up with the requestor once approval is obtained from below individuals (see approval process)
 - Residents must document all internal moonlighting shifts in Wolverine Access to be compensated for the additional shifts
- Moonlighting shift approval process
 - Residents must receive approval from the following individuals prior to EACH internal OR external moonlighting shift:
 - Their RPD
 - Their RAC-assigned mentor (if different than the RPD)
 - Their current rotation preceptor
 - Their research mentor
 - Their writing mentor

- The residents' RPD/RAC-assigned mentor is responsible for maintaining record of internal or external moonlighting hours and monitoring performance including any impact moonlighting hours have on scheduled duty hours and the ability of the resident to achieve the educational goals and objectives of the residency program and provide safe patient care.
- If the residents' participation in internal or external moonlighting affects their judgment while on scheduled duty hours the RPD or RAC-assigned mentor may decline future requests to moonlight.
- Preceptors are responsible for reaching out to the RPD if they have any concerns about the residents' judgment on scheduled duty hours due to moonlighting.

8. Benefits

Salary

Each resident receives a competitive stipend. Residents will be paid the last working day of each month. Direct deposit can be set up through Wolverine Access.

Vacation and Interview Days

- Number of paid time off (PTO) days
 - Residents are allotted ten (10) vacation days and five (5) interview days. At least five (5) vacation days must be set aside for use as interview days (if more than the five allotted interview days are needed) until the resident has secured a position for the following year. Unused interview days cannot be used as vacation days.
 - Residents may use sick time (deducted from PTO) on any rotation. Any PTO bank reduction does not result in having to make up time (unless exceeds 10 days of PTO bank)
 - Weekends/Holidays: Resident must switch with a co-resident or make up the shift(s) per pharmacy procedures. No PTO is deducted.
 - Residents may use interview days (deducted from interview day bank) on any rotation
 - PGY-1 residents may take up to 3 days off from rotation at the end of June (if not taking any other days off and has PTO available) if needed to move to a new location for a PGY2 residency. All requests must be approved by the RPD. The resident must complete the check-out process prior to their last day
- Procedure for requesting vacation and interview days
 - Residents must provide 30-day notice for PTO requests. Approval of emergent requests or requests where a 30-day notice is not possible will be at the discretion of the RPD.
 - PGY1 residents
 - Request approval from rotation preceptor (PGY1 RPD, preceptor of note for the dates requested, research and writing preceptors for December). This permission should be documented in an email following the deadline dates as outlined in the electronic scheduling system
 - Forward email containing approval from both rotation preceptor and RPD to Rotating RAC Chair for record keeping
 - PGY2 residents
 - Request approval from rotation preceptor (PGY2 RPD, preceptor of note for the dates requested, research and writing preceptors for December). This permission should be documented in an email following the deadline dates as outlined in the electronic scheduling system

- Forward email containing approval from both rotation preceptor and RPD to Rotating RAC Chair for record keeping

Holidays

Residents are entitled to the seven official University holidays: Independence Day, Labor Day, Thanksgiving Day and the day following, Christmas Day, New Year's Day, and Memorial Day. Each resident will work two holidays (one minor holiday and one major holiday block) and have the other 5 holidays off of work.

If a resident observes an unofficial University holiday, they need to follow vacation day procedure to request time off. When requesting a vacation day in December, PGY1 and PGY2 residents will need permission from their research and writing project preceptors and final approval from their RPD.

Professional Leave and Business Days

Professional leave may be granted to attend the ASHP Midyear Clinical Meeting, the Great Lakes Residents Conference, and other meetings approved by RAC. Additionally, up to 5 business days may be approved for the resident to use to attend other professional organization meetings; however, both approval by the resident's preceptor and RAC must be obtained.

A Travel Authorization Form must be filed whenever the resident leaves the Hospital on University Business.

Time Off on MUP/Operations Rotation (PGY1 Pharmacy residents)

Due to the limited time on MUP/Operations rotation for PGY1 pharmacy residents, residents must make up any days taken off for illness or interviews that exceeds 3 days on the combined rotation (whether on operations or MUP).

Sick Day Notification

In the event a resident is sick, the resident utilizes their PTO bank of days.

If the sick-day is a **weekday**, the following procedure needs to occur:

- Contact rotation preceptor via email to notify them of illness a minimum of 2 hours prior to the start of rotation or 7am at the latest
- If your rotation preceptor is not at work that day, be sure to notify the person covering, and email the appropriate team email list for the service and pharm-sched@med.umich.edu to ensure coverage can be organized
 - Cardiology, CVICU, MP: Pharm-Cardiothoracic-Team@med.umich.edu
 - Internal medicine, MICU, Neuro ICU: Pharm-Medicine-Team@med.umich.edu
 - Oncology, BMT: Pharm-Oncology-Team@med.umich.edu

- SICU, ACS, STX: Pharm-Surgery-Team@med.umich.edu
- Any pediatric rotation: PHARM-PEDS@med.umich.edu
- Pharmacy operations: Call the central pharmacy a minimum of 2 hours prior to shift at 734-936-8251 to let them know which shift you were scheduled, they will contact via email Pharm-Sched@med.umich.edu and work to find coverage
- Forward notifications for record keeping to the appropriate RPD and RPC

If the sick-day is a weekend, the following procedure need to occur:

- Minimum of 2 hours prior to the start of your scheduled shift (or earlier if possible)
 - Call central pharmacy to let them know which shift you were scheduled for and any other pertinent details
 - Email pharm-sched@med.umich.edu
- If able, the resident should try to find another resident to switch shifts with as a first option
- Central pharmacy:
 - Contact the administrator-on-call (pager number 30164)
 - FYI page: the situation and resident is currently attempting to find coverage within the resident class
 - Assist in finding coverage within the residency class first
- Regardless if the resident or satellite find coverage, the administrator on call should be paged
 - If coverage found: page administrator to let them know which resident will be covering
 - If coverage could not be found within residency class: page administrator to request further help to find coverage
- The resident will report the illness/call-in and any resident coverage that was found to the appropriate person/people as outlined in weekday section on the Monday following the weekend.

This procedure is in accordance with the departmental policy on attendance.

Leave of Absence

Leave of Absence is defined as any time off longer than five (5) workdays. In the event that a leave of absence is needed, a resident is eligible for time off in accordance with the appropriate University of Michigan Human Resource Policy:

- UM Standard Practice Guideline 201.30: Unpaid Leaves of Absence
- UM Standard Practice Guidelines 201.29: Jury and Witness

All requests for Leave of Absence must be submitted in writing to the respective Residency Program Director (RPD). The RPD shall notify the appropriate pharmacy leadership (e.g.,

Pharmacy Manager, Pharmacy Director, etc). Please refer to individual HR policies and procedures for specific processes and documentation requirements based on type of leave.

The RPD (or designee) will be responsible for approving the Leave of Absence request. Please refer to individual HR policies and procedures for specific processes and documentation requirements based on type of leave.

Extended leave of absence (beyond the allotted 10 days of PTO) will result in an unpaid leave. If eligible, the resident may receive short/long term disability payments per HR policies.

- The resident will be required to extend their residency training for the period equal to the days of unpaid leave up to 90 days
- Any resident taking a leave of absence that is greater than 90 days will be ineligible to complete the remainder of their Pharmacy Residency Program
 - The resident will be able to reapply to the Pharmacy Residency Program and will be evaluated against other prospective candidates applying for the same Pharmacy Residency Program should an absence extend past 90 days

Leave of absence(s) may extend the training period to reach an acceptable level of performance in order to graduate from the program.

- Any leave greater than or equal to 4 weeks will require the resident to make-up missed time.
- Leave of absence time must be made up within 6 months of the date the program was scheduled to be completed or the resident forfeits the privilege of receiving the Certificate of Completion of the program. This will extend the residency beyond the original one-year agreement.
- Upon returning from leave, hours must be: worked under the guidance of a preceptor, equal to the hours missed and worked to complete the requirements that were not yet completed due to leave of absence. These supplemental hours will be paid at the current resident rate of pay as was established by the offer letter from the University of Michigan and may equal but no exceed hours missed during leave.

The Residency Program Director is responsible for assuring that the resident is aware of this policy and has received a signed acceptance notification. The resident will be informed of this policy at the beginning of the residency and will sign a copy indicating that they understand and agree with the policy.

See policy 114.50: Attendance Policy for Allied Health and Office Staff

Travel (if available)

Arrangements

Travel arrangements for business purposes must be approved by RAC several weeks in advance of travel date. Additionally, approval is needed by the preceptor of the affected rotation

Health Benefits

The University of Michigan offers a menu of health benefit packages to pharmacy residents. Nominal fees may need to be paid to enroll in the residents' choice of a health plan. Cost for two persons and/or family rates are nominal. Dental coverage is not provided for residents in their first year of training.

Further details and answers to questions may be obtained from the Office of Staff Benefits.

Job-Incurred Injuries

Residents must inform the RPC of job-incurred injuries as soon as possible after the incident and a report must be filed with Employee Health Services describing the incident.

Injuries sustained in Ann Arbor should be treated at the University Hospital Emergency Suite. Injuries sustained outside the city should be treated at the nearest medical facility. The University will not be responsible for incurred costs if treatment can be obtained at University Hospital but the injured staff member elects to receive treatment at another medical facility.

Miscellaneous Benefits

Additional benefits such as gymnasium passes, free city bus transportation, and discounts on books are available to residents as University of Michigan staff and Clinical Instructors at the College of Pharmacy

9. Preceptor Responsibilities

Preceptors' Eligibility and Qualifications

- Eligibility for PGY1 precepting - Pharmacist preceptors must be licensed pharmacist preceptors who:
 - Have completed an ASHP-accredited PGY1 residency followed by a minimum of one year of pharmacy practice experience; or
 - Have completed an ASHP-accredited PGY1 residency followed by an ASHP-accredited PGY2 residency and a minimum of six months of pharmacy practice experience; or
 - without completion of an ASHP-accredited residency, have three or more years of pharmacy practice experience.
- Eligibility for PGY2 precepting: Pharmacist preceptors must be licensed pharmacist preceptors who:
 - Have completed an ASHP-accredited PGY2 residency followed by a minimum of 1 year of pharmacy practice in the advanced practice area or
 - Without completion of an ASHP-accredited PGY2 residency, have 3 or more years of practice in the advanced area
 - Preceptors requesting to precept a PGY2 resident must be approved as a PGY1 preceptor. PGY2 Residency Program Directors (RPDs) may appoint a PGY1 approved preceptor at their own RAC if the preceptor meets eligibility.
- Qualifications - Preceptors must demonstrate the ability to precept residents; learning experiences by demonstrating all of the following:
 - ability to precept residents' learning experiences by use of clinical teaching roles (i.e., instructing, modeling, coaching, facilitating) at the level required by residents
 - ability to assess residents' performance;
 - recognition in respective area of pharmacy practice for which they serve as preceptors;
 - maintenance of an established, active practice in the area for which they serve as preceptor;
 - maintenance of continuity of practice during the time of residents' learning experiences;
 - ongoing professionalism, including a personal commitment to advancing the profession.

Preceptor Appointment and Re-Appointment Procedure

- Initial appointment
 - Pharmacists meeting the eligibility and qualification requirements outlined above and are interested in becoming a PGY1 preceptor should complete the following and send to the Preceptor Appointment Workgroup:
 - ASHP Preceptor Academic and Professional Record (APR) Form located on the RAC website
 - A learning Experience Description they intend to precept in (or initiate)
 - PGY2 RPDs may appoint a PGY1 approved preceptor at their own RAC if the preceptor meets eligibility.
 - Pharmacists not meeting qualifications to become program preceptors have the opportunity to become preceptors-in-training and should seek that opportunity with the RPD of the program they'd like to precept in.
- Re-appointment
 - Established program preceptors
 - Preceptors will:
 - Update their APR forms on a biennial basis in accordance with their state pharmacy license renewal dates.
 - Complete the preceptor qualifications-survey at the time of APR form review to ensure continued compliance with ASHP standards.
 - The Preceptor Appointment Workgroup will compile surveys and APR forms of preceptors due for re-appointment on a quarterly basis and bring recommendations for action to RAC meetings.
 - Preceptors-in-training
 - The preceptor-in-training mentor will review progress towards completion and instruct the preceptor-in-training when it would be appropriate for him/her to request consideration for appointment as an official program preceptor. See preceptor-in-training development below.

Preceptors-in-Training Development

- Definition of a preceptor-in-training
 - A preceptor is considered a preceptor-in-training if they meet eligibility but do not meet the qualifications to be appointed as a residency preceptor. There could be extenuating circumstances that requires RAC-approval on a case-by-case basis that would allow a preceptor-in-training to proceed even if not eligible (PGY2 programs only).

- Preceptor-In-Training Development Program Procedures
 - Mentor assignment- When a preceptor is identified as meeting criteria for Preceptor-in-training designation, a mentor will be assigned as follows:
 - If the preceptor-in-training will be working most closely with a focused PGY1 such as the Community or Managed Care (non-pharmacy practice) or a PGY2 program, the respective program director will assign a mentor.
 - If the preceptor-in-training will be working most closely with a specific PGY1 program, the Residency Preceptor Appointment Workgroup will assign a mentor
 - Mentor will meet with preceptor-in-training at minimum three times per residency year and review the Preceptor Development Plan (see Appendix G).
 - Mentor will review the progress towards completion of requirements and inform the preceptor-in-training when he/she has completed the training program. Requirements must be met within two years of initial preceptor-in-training designation.
 - At completion of the program, the mentor will submit the preceptor development plans to the PGY1 Residency Preceptor Appointment Workgroup or PGY2 program director as appropriate for consideration from RAC for appointment.
 - If the preceptor-in-training aims to have their own learning experience, the mentor will review the description created and provide feedback.
 - Preceptor-in-training responsibilities:
 - Attend preceptor orientation session
 - Preceptor-in-training will complete the preceptor development plan (see Appendix G) and schedule in-person meetings with assigned mentor at least three times in the residency year to create and track a plan towards completion of training requirements.
 - At the completion of the development program the preceptor-in-training will prepare the appropriate documents and submit to the Residency Program Coordinator for review by the committee for appointment.
 - If the preceptor-in-training aims to have their own learning experience, they will prepare this and submit to their mentor for review as part of their development program.

10. Residency Advisory Committee (RAC)

Purpose

The purpose of the Residency Advisor Committee (RAC) is to establish and maintain ASHP-accredited pharmacy residency programs and to server as the advisory and organizational structure of all Michigan Medicine pharmacy residency programs

The committee shall assure:

- Residency programs adhere to the Pharmacy Department, Hospital and ASHP mission and guidelines
- Respective residents' and Department's goals are met
- Residents' advocacy to other faculty, staff, and Departments
- Residents' adherence to residency program
- Mentorship and guidance to residents
- Develop new programs as needed to support: department needs, future pharmacist roles, and job market changes
- Decisions important to the function of the department are made in a timely manner

Membership and Description of Responsibilities

- Permanent Chair - Residency Program Coordinator (voting tie breaker)
 - Provide oversight of all RAC activities and continuity over time
 - Coordinate residency recruitment
 - Serve as research project proposal reviewer
 - Lead RAC meetings
 - Ensure adequate feedback and representation of affected parties for all RAC votes
 - Coordinate resident orientation
 - Coordinate research project proposal review
 - Review and appoint members to RAC
- Six (6) clinical pharmacist preceptors
 - Serve as research project proposal reviewers
- All residency program directors (PGY1 and PGY2)
- One (1) tenure-track faculty member
 - Serve as liaison with College
 - Serve as research project proposal reviewer
- One (1) clinical pharmacist in management/operations
 - Coordinate and evaluate PGY1 resident operations experience
- One (1) coordinator of resident clinical on-call
- All residency program coordinators (non-voting)
- One Assistant Director of Education and Research (non-voting member)

- Chief Residents (PGY1 and PGY2)
 - Represent residency class
- Rotating RAC secretary (non-voting member)
 - Fulfilled by a PGY1 or PGY2 resident on a rotating basis
 - Prepare meeting agenda and take meeting minutes

Special Requests

All issues and special requests (i.e. rotation requests, travel requests, deadline extensions) relating to the residency should be submitted by the resident to RAC for consideration.

Meetings

- RAC meets at least monthly
- Action taken by the RAC shall be decided by general consensus (4 or more members agree or disagree). If consensus cannot be reached the RPC will decide on the decision to be made.
- The secretary shall provide e-mail notice of the time and place of all meetings to each member of the committee. An agenda of the items for which action may be taken shall be distributed no later than three days prior to each meeting.
- Non-members who wish to attend RAC meetings (in person or monitor conference calls) require RPC approval
- Agendas will be prepared by the secretary, incorporating requests from members of this and other committees
- Members who cannot attend a meeting may identify a proxy to attend and vote in their place provided the individual is identified in advance and this is communicated to the RPC and rotation Secretary
 - The RAC member must identify the proxy in advance and submit the name of the individual to the rotating RAC Secretary when they send out the call for agenda items
 - The rotating RAC Secretary will record the member absence and the name of the individual proxy on the agenda and minutes for documentation
 - Only 1 vote can count for each program

11. Resident Candidacy Process

University of Michigan Health System residencies utilize ASHP PhORCAS™ and resident candidates must be registered for the Match on their website. The application deadline for all residency programs is January 1st. All residency candidates must be eligible to work in the United States for the entirety of their residency program. The UMHS pharmacy residency program cannot sponsor any visas. All residency candidates must have graduated from an ACPE accredited program or have a Foreign Pharmacy Graduate Equivalency certificate from the NABP and be at minimum a 5-year program.

For PGY2 applicants, the applicant must be participating in or have completed an ASHP-accredited PGY1 pharmacy residency (or one in the accreditation process). A PGY1 certificate must be presented during orientation of the PGY2 year to their RPD or RPC for verification.

A. Prescreening of Applicants

A prescreening tool is utilized. Criteria evaluated includes any of the following:

- Previous work experience
- Writing experience/publications
- Presentations/public speaking
- Leadership and involvement in extracurricular activities
- Strengths of letters of recommendation
- Letter of intent
- Diversity and extent of clinical experiences
- Research experience
- Transcripts for GPA and College of Pharmacy/Foreign Pharmacy Certificate equivalency status
- Work eligibility

A separate meeting for each residency program will take place with reviewers. The RPD or RPC will pull the data from the electronic database. This information will be ranked in order of highest score to lowest. The goal is to invite 4 candidates per residency position.

University of Michigan students with a GPA minimum of 3.5 are allowed an abbreviated interview day (half-day) for PGY1 pharmacy and PGY1 community residencies. These students may decide to go through the full-interview day process as well. Either route, they are screened and evaluated the same way as all other candidates. For those University of Michigan students not meeting criteria for an automatic half-day interview, they can still achieve a full interview based on the screening criteria listed above.

Applicant screening typically occurs in the first 2 weeks of January with a goal of extending on-site interviews by January 15th.

B. On-site Interviews

On-site interviews typically occur in late January and February. The RPD or RPC of every program will email the candidate an interview itinerary along with the updated Residency Manual and pertinent travel/parking information (as applicable) at least 1 week prior to the interview. During the on-site interview, the RPC will provide an overview of the program and review pertinent Residency Manual policies and expectations for completion of the residency.

All pharmacists that interview a candidate onsite will have an access to the onsite evaluation form. After the last interview the RPD or RPC will schedule a meeting time with the original interview reviewing team from the prescreen. The RPD or RPC will pull the data from the electronic database. This information will be ranked in order of highest score to lowest.

Determinations based on weaknesses collected from the tool will be used to remove candidates with negative feedback such as not a team player, failing/low grades. This information will be ranked in order of highest score to lowest. The final rank list will be uploaded to ASHP by the RPD or RPC.

12. Communications and Logistics

Pagers and Paging

Each resident will be provided with a pager. Paging can be accomplished by accessing the Michigan Medicine clinical home page. Professional behavior is expected when utilizing the paging system.

During longitudinal ambulatory care activities, pagers should be switched to preceptor coverage during clinic hours if prompt response will not be possible to pages. The respective medical team should be notified of the temporary coverage changes. Fellow residents will cover the code pager when the resident is assigned code coverage and is off-site. The resident has responsibility of finding this coverage.

Telephone System

For local calls: Dial "97" and then the phone number if within the pharmacy at the hospital. To call locally from the Victor Vaughan Building, dial "9" and then the phone number.

Long distance calls: May not be made on office phones unless directly related to work.

Fax Guidelines

Facsimiles may be sent and should be restricted to business use only

Personal Computers

The computers located in the residents' area are dedicated to use by the residents. Software should not be added to the hard disks of any of these terminals

Photocopying

Residents may use the photocopying machine in the B2 pharmacy or in the copier rooms in the Victor Vaughan building for hospital-related business

Professional Posters

The printing of professional posters is available for the residents at the Duderstadt Center in Pierpont Commons on University of Michigan North Campus or other alternatives. See poster template for guideline to poster format.

Guidelines for Pharmacist Documentation in the Medical Record

Pharmacists within the University of Michigan Hospitals and Health Centers are authorized to write in the Progress Notes section (under Medication Management and Pharmacy Note templates) of the patient medical record in the following circumstances:

- Documentation of patient-specific clinical activities, including patient counseling and education
- Provision of patient-specific pharmaceutical information and drug therapy monitoring and detection of potential adverse drug reactions and drug interactions as the result of solicited or unsolicited consultations
- Pharmacokinetic and Anticoagulation Pharmacy provided service
- Entries in the patient medical record shall be made only by pharmacists licensed in the State of Michigan. Pharmacy students and unlicensed pharmacy residents may write in the medical record providing that a licensed pharmacist reviews and co-signs each notation.
- Notations by pharmacists shall be entered in the Progress Notes section of the medical record in an approved template

Appendix A: Graduation Requirement Checklist

Residency Requirement	RPD or RAC mentor	Date Complete	Corresponding ASHP standard
<i>Rotation/Patient Care Experiences</i>			
Refer to PharmAcademic® evaluations;			3.3
• Evaluation of self and preceptor for each rotation			3.4
• Baseline and quarterly evaluations uploaded into PharmAcademic®			
Completion of ≥80% ASHP Required Outcomes			3.3 3.5
Minimum average score of “5 = proficient” for all remaining outcomes			3.3 3.5
All clinical practice requirements have been completed as stated in the residency manual			3.3c
<i>Professional Obligations</i>			
Professional Committee Involvement and Resident-Run Committees (institutional, local, state or nationally) as stated in residency manual			4.1
State of Michigan Pharmacist and Controlled Substance licensure (60 days of hire)			1.4 1.5
<i>Scientific Advancement/Research</i>			
Research Project and supporting manuscript is suitable for publication			3.3 (goal 2.2)
Writing Project and supporting manuscript is suitable for publication			3.3
Continuing Education presentation, Poster presentation, Platform presentation			3.3 (goal 4.1)
<i>Longitudinal Experiences</i>			
Teaching activities have been completed as stated in residency manual			3.3
Clinical weekend activities (Pharmacokinetic Monitoring, Anticoagulation, Nutrition and Bacteremia as reviewed through CANOPy forms)			3.3
Staffing (as reviewed through CANOPy forms)			3.3
Clinical on call activities as stated in the residency manual			3.3
Participate in management of medical emergencies (ACLS) (as reviewed through CANOPy forms)			3.3
Professional development series participation (Optional research topics for PGY2 residents)			3.3 (goal 2.2)
<i>Optional:</i> Teaching Certificate has been completed as stated in residency manual			3.3
<i>Other</i>			
Participate in at least 1 group Community Service project or volunteer at student-led free clinic (mandatory for PGY1 pharm, PGY1 community, & PGY2 amb care)			

Appendix B: Rotation Options

Category	Rotations
Ambulatory Care 1 required for PGY1 residents	Outpatient Anticoagulation
	Brighton Internal Medicine
	Ambulatory Hematology
	Ambulatory Oncology
	Ambulatory Oncology: Solid Tumor
	Ambulatory Internal Medicine
	Liver Transplant Clinic
	Kidney Transplant Clinic
Internal Medicine 1 required for PGY1 residents; Various preceptors offer	Adult Internal Medicine
	Adult Internal Medicine- Med GI/Liver
	Adult Cardiology
	Adult Medical Oncology
	Adult Hematology
	Adult Bone Marrow Transplant
	Obstetrics/Labor and Delivery
Management 1 required for PGY1 residents various preceptors offer	Administration
	Pediatrics Administration
	Pharmacy management/administration – Transitions of Care/Emergency Services
	Pharmacy Management and Leadership
	Academic Administration
Critical Care 1 required for PGY1 residents	Surgical Critical Care
	Medical Critical Care
	Neuro ICU
	Trauma/Burn ICU
	Cardiovascular ICU
Medication Use Policy/Operations	Pharmacy Operations/Medication Use Policy
Elective Rotations	Pediatric ICU
	Pediatric Cardiothoracic ICU
	Neonatal ICU
	Pediatric Emergency Medicine
	Pediatric Antimicrobial Stewardship
	Teaching/Academia
	Adult Cardiology
	Adult Medical Oncology
	Adult Hematology
	Adult Bone Marrow Transplant
	Obstetrics/Labor and Delivery
	Adult Emergency Medicine
	Adult Palliative Care Consult Service
	Infectious Disease/Antimicrobial Stewardship
	Inpatient Psychiatry and General Neurology
Lung Transplant/Medicine Pulmonary	

	Pharmacogenomics
	Solid Organ Transplant
	Surgery- Nutrition

Appendix C: Off-site Rotation Approval Form

Instructions: For each new off-site rotation and pre-existing off-site rotation, the RPD must fill out the following form and forward to RAC for approval.

- Explain the rationale for the rotation needed to be off-site vs. at the University of Michigan Health System.
- What options have been explored in the attempt to find a similar experience at the University of Michigan Health System?
- What role will the resident have during the off-site rotation (observer vs. active pharmacist)?
- How will the RPD evaluate the quality of preceptorship received at the off-site rotation?
- Describe the impact to the resident's staffing/service component if the off-site rotation is approved (including but not limited to weekend/weekday staffing, on-call, or code obligations)

Appendix D: Seminar Evaluation Form

Presentation Title: _____ **Date** _____

Speaker: _____

Scale: _____

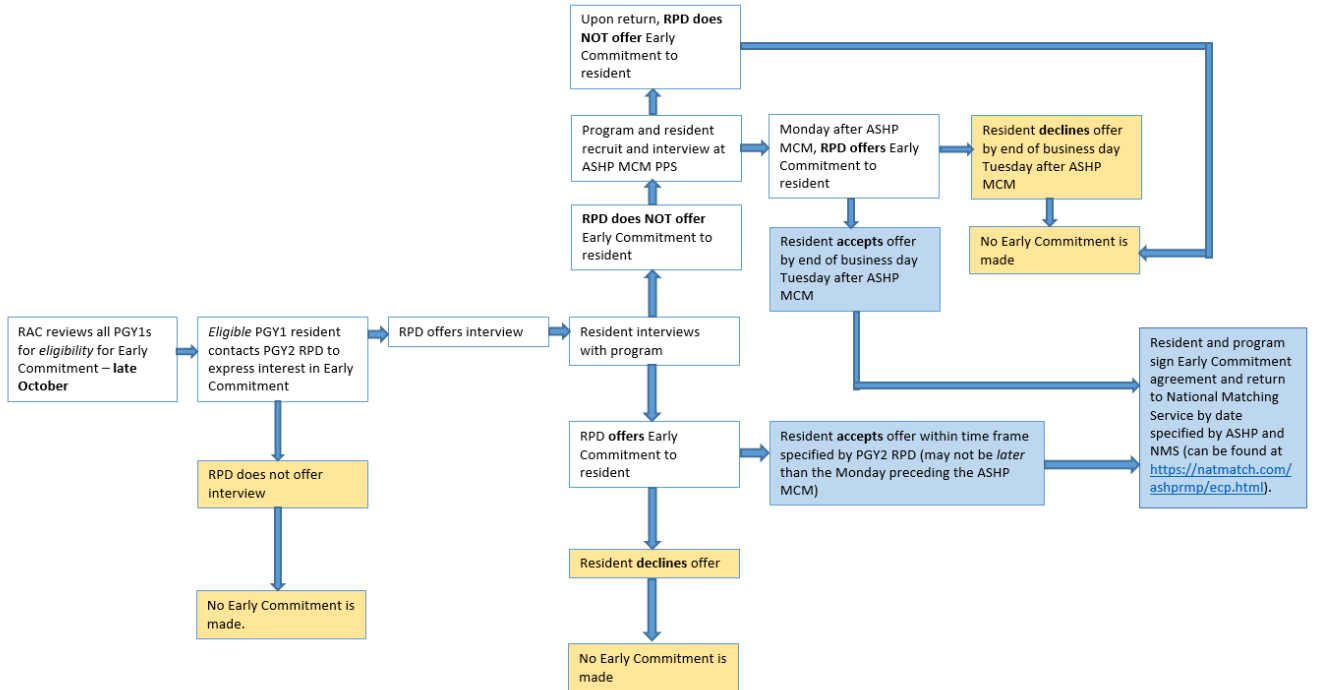
1= Unacceptable	Needs extensive improvement, does not meet expectations
2 =Needs improvement	Meets some expectations but often falls short
3= Meets expectations	Meets all expectations consistently
4= Exceeds expectations	Meets and exceeds most expectations
5= Exceptional	Exceeds all expectations

	Scale	Comments
<u>Speaker Evaluation</u> - Appropriate volume, pronunciation, articulation - Appropriate pace - Presentation was spoken, not read - Adequate eye contact - Utilized effective non-verbal communication - Engaged audience and maintained their interest - Absence of distracting mannerisms and filler words		
<u>Presentation Organization</u> - Opened with a prepared, inviting introduction - Presented in a logical sequence - Transitioned between concepts clearly - Summarized conclusions and actionable ideas		
<u>Presentation Content</u> - Stated purpose clearly - Stated methods clearly - Discussed results in sufficient detail - Stated conclusions appropriate, well supported - Appropriate to audience and time allotted - Speaker conveyed how the project would improve patient care and/or positively impact the organization or others		
<u>Mastery of Subject</u> - Demonstrated substantial contribution to and ownership of project by resident - Material was relevant and contemporary - Presentation was authoritative - Answered questions completely and logically		
<u>Quality of Project</u> - New insights were gained by audience - High likelihood project improves patient care and positively impacts the organization or others		
<u>Audiovisual Aids</u> - Legible, uncluttered, visually appealing slides - No spelling or grammar errors - Tables and graphs were visually appealing - Graphics and/or animation used appropriately - Slides complemented verbal presentation		
<u>Bias and Referencing</u> - Outside information appropriately referenced - Presentation was unbiased and provided fair balance of information		

Content was delivered in allotted time: _____ min Yes No **Time:** _____

Reviewer Name: _____ Reviewer Specialty: _____

Appendix E: Early Commitment Workflow



* RPD – Residency Program Director

Appendix F: Teaching Evaluation (optional)

Feedback on GSI and Fellow/Resident Course Performance

Instructor's Name: _____ Course Name & Lecture Title: _____

Observer's Name: _____ Observation Date & Time: _____

Direct Classroom Teaching				
<i>The GSI/Fellow/Resident...</i>	DONE	NEEDS IMPROVEMENT	NOT DONE	N/A
Demonstrates command of the classroom <ul style="list-style-type: none"> - Effectively holds class attention - Manages disruptive behavior constructively - Manages classroom time efficiently - Gives clear and concise directions 				
Uses attending behaviors effectively <ul style="list-style-type: none"> - Good eye contact - Employs an appropriate rate of speech - Has a relaxed but attentive posture - Moves about the room 				
Conducts self in a professional and confident manner <ul style="list-style-type: none"> - Is enthusiastic and confident in explaining the subject matter - Appears knowledgeable - Tone is professional and academic 				
Answers questions clearly and effectively <ul style="list-style-type: none"> - Repeats student questions so all can hear - Checks for student understanding - Provides clear and comprehensive explanations when required - Tells the class that he/she will follow-up on questions if necessary 				
Creates an engaging environment where students openly ask questions and give their own ideas and opinions <ul style="list-style-type: none"> - Creates an inclusive space for students to speak - Ensures an effective balance between student discussion and faculty lecturing - Prevents or terminates discussion monopolies - Is sensitive to individual interests, abilities, and experiences 				
Contributes to a positive climate with students in the classroom <ul style="list-style-type: none"> - Demonstrates patience in helping students understand difficult concepts 				

- Corrects student mistakes in a non-threatening manner and recommends additional information to benefit all learners				
Ensures learning activities align with material being taught - Coordinates learning content with instructional objectives - Prepares classroom activities that reflect				
Logistical Tasks				
<i>The GSI/Fellow/Resident...</i>	DONE	NEEDS IMPROVEMENT	NOT DONE	N/A
Is prepared for classroom lecture or activities - Has necessary lecture materials ready at the beginning of the classroom session (e.g. PowerPoint presentations, lecture handouts, quizzes, etc.) - Is prepared for recitation sessions - Is prepared for lab sessions				
Demonstrates accountability - Meets deadlines in grading - Meets deadlines for content preparation - Holds office hours, if required				
Follows through with teaching tasks - Responds to student questions in a timely manner - Responds to faculty member and/or other instructors in a timely manner				

List the major strengths of this GSI or fellow/resident:

List at least 2 areas where you feel the GSI or fellow/resident can improve:

Additional comments:

Observer's signature: _____ Date: _____

Appendix G: Preceptor-in-Training Development Plan

Preceptor name:	
PGY1 Learning Experience(s) Precepted	
PGY2 Learning Experience(s) and Program(s) Precepted	
Other learning experiences: (eg. on-call review, code 500, Grand Rounds slide review, research project advisor, residency advisor)	
Attendance at a Preceptor Orientation Session provided by the RPC/Preceptor Committee	Date attended:
Preceptor qualifications: Please check and list examples of preceptor qualifications	<input type="checkbox"/> Preceptor in Training has modeled at least once for mentor a verbal formative feedback session
	<input type="checkbox"/> At least one PharmAcademic evaluation co-signed by mentor
	<input type="checkbox"/> Recognition in the area of practice for which they serve as preceptor (please refer to ASHP PGY1 and PGY2 guidance document for examples) Recognition obtained: <i>Click or tap here to enter text.</i>
	<input type="checkbox"/> Active practice in the area of practice for which they serve as preceptor (List current position you practice in at least x% of the time)
	<input type="checkbox"/> Maintenance of continuity of practice during residents learning experience(examples: contributions to policies, guidelines, or protocols, creation of new pharmacy service or part of a new service initiative, appointments to drug policy committee or other organizational committees)
	<input type="checkbox"/> On-going professionalism, including a personal commitment to advancing the profession (examples: precepting pharmacy students, regular in-services, local/state/national involvement in organizations beyond membership, presentations at local/state/national meeting, completion of a teaching program outside of residency, preceptor development topics given, didactic teaching experiences at COP, evaluator at local/state/national organization of student/resident posters, publications, participation in Wellness activities, active involvement in system-wide committees) Of note: Must have at least 3 examples over the past 5 years
	<input type="checkbox"/> Attendance at Preceptor Development Presentations (at least 2 annually) Presentations attended: 1. <i>Click or tap here to enter text.</i> 2. <i>Click or tap here to enter text.</i> 3. <i>Click or tap here to enter text.</i>

	<p>4. Click or tap here to enter text.</p> <p>5. Click or tap here to enter text.</p> <p>6. Click or tap here to enter text.</p>
	<input type="checkbox"/> Construct a learning experience description in accordance with UMHS Department of Pharmacy and ASHP requirements
	<input type="checkbox"/> After completion of qualifications listed, updated Academic Professional Record prepared and review with mentor to ensure that areas to be developed have been completed.
Opportunities for growth (identify areas from section above)	
Initial Preceptor Development Plan (specific action plans for growth areas)	
Progress toward improvement in outlined areas	Baseline: Midpoint: End of residency year:
Preceptor self-evaluation	
Assigned Mentor Comments	Baseline: Midpoint: End of residency year:
Manager comments	Baseline: End of residency year:

Appendix H: 2021 Preceptor Development Plan

University of Michigan Health System Residency Preceptor Development Plan January 2021 to December 2021

Based on preceptor assessment completed in February, the following areas have been identified as areas of focus for the upcoming year:

- ASHP Residency Accreditation Standards
- Creating Independent Practitioners

This Development Plan is open to all preceptors across all programs. This is not meant to limit any program-specific preceptor development sessions already being implemented at program-specific RACs.

Activities and tentative scheduling:

- May 2021:
 - Preceptor development – Creating Independent Practitioners- Stan Kent
- July 2021 (Residency Orientation)
 - Mental health/suicide awareness in learners – Office of Counseling & Workplace Resilience
- September 2021 (annual development session)
 - New preceptor bootcamp – Residency Coordinator, Preceptor Appointment Committee Member, LED Committee Member
- November 2021
 - Preceptor development- ASHP Accreditation Standards with John Clark

Appendix I: Program-Specific Information Section

PGY2 Cardiology Pharmacy

Program Director: Kristen Pogue, PharmD, BCPS (AQ Cardiology), BCCP

Program Coordinator: Sarah Adie, PharmD, BCCP

Description of Program

The PGY2 Cardiology Residency is an organized, directed postgraduate training program that focuses on the development of the knowledge, attitudes, and skills needed to provide pharmaceutical care in cardiovascular pharmacy practice. The program is structured in accordance with the ASHP Accreditation Standard for Specialized Pharmacy Residency Training in Cardiology.

Graduation Requirements

- Writing project (or additional research project if previously published a review article)
- Teaching at College of Pharmacy (3 hours per week for 1 semester)
- Deliver lecture in Doctor of Nurse Practitioner Pharmacology Course
- Rotation based teaching (2 topic discussions per rotation; serve as primary preceptor for 1 or more P4 APPE rotations)
- Core cardiology topic discussions and journal club (6 topics and 6 journal clubs/late breaking clinical review)
- Development of a guideline or protocol for cardiology or related areas
- Completion of cardiology-related quality improvement project
- Develop and deliver medication-related talk to LVAD/heart transplant patient support group (if scheduling allows)
- Develop nursing and/or physician in-service
- Participation in pharmacist code response training

Required Rotations

- Orientation (1 month)
- General Cardiology (2 months)
- Cardiology Critical Care Unit (2 months)
- Heart Failure/Transplant (2 months)
- Cardiovascular Surgery Intensive Care Unit (1 month)
- Ambulatory Cardiology (VA) (1 month)
- Longitudinal Outpatient Anticoagulation or Post-ICU Discharge Clinic (4 hours per week for 16 weeks)

Elective Rotations

- Pediatric Cardiology (Inpatient and Outpatient Adult Congenital Disease) (1 month)
- Emergency Medicine (1 month)
- Medical Ventricular Assist Device (1 month)

On-Call Requirements (optional)

- On-call pager back-up to PGY1 residents (1-week commitment, approximately 6 times throughout the year)

Meeting Attendance

- Attendance at Great Lakes Pharmacy Residency Conference with presentation of results of one research project
- Attendance at PGY2 cardiology specific conference (e.g. ACC, ACCP, AHA)

PGY2 Solid Organ Transplant Pharmacy

Program Director: Sarah Tischer, PharmD, BCPS

Description of Program

The Michigan Medicine-University of Michigan PGY2 solid organ transplant residency prepares its graduates to assume positions in abdominal, thoracic, or pediatric transplantation as clinical specialists employed by an institution or as a non-tenure track faculty member at a college of pharmacy. Graduates from this program will be proficient in the care of transplant recipients within all aspects of the transplant process, including pre-transplant, during the acute care phase of transplant, and ongoing post-transplant care. The program is structured in accordance with the ASHP Accreditation Standard for Specialized Pharmacy Residency Training in Solid Organ Transplant.

Graduation Requirements

- Completion of writing project/or secondary research project and manuscript suitable for publication
- Develop nursing and/or physician in-service
- Longitudinal experiences
 - Completion of weekend service commitment (15 clinical weekends, 1 major and 1 minor holiday)
 - Presentation of core transplant foundation topics and patient case presentations to transplant preceptors
 - Development or modification of a guideline/protocols/monograph/patient handout/clinical service/quality project for transplant or related area (minimum of 1 guideline/protocol plus at least 1 other)

Required Rotations

- Transplant Surgery (Abdominal) Experience 1 (1 month)
- Transplant Surgery (Abdominal) Experience 2 (1 month)
- Lung Transplant (1 month)
- Heart Failure/Transplant (1 month)
- Kidney Transplant Clinic (1 month)
- Liver Transplant Clinic (1 month)
- Transplant Infectious Disease (1 month)
- Orientation (July) (1 month)
- Research (December) (1 month)

Elective Rotations

- Intensive Care Units (options include: Cardiovascular/Medical/Surgical) (1 month)
- Hepatology (1 month)
- General Pediatrics Transplant (1 month)

On-Call Requirements

On-call pager back-up to PGY1 residents (1-week commitment, approximately 6 times throughout the year)

Meeting Attendance

- Attendance at Great Lakes Pharmacy Residency Conference with presentation of results of one research project
- Attendance at PGY2 transplant specific conference (examples: ATC, ISHLT)
- Attendance at AST Fellows Symposium in September is encouraged

PGY2 Emergency Medicine Pharmacy

Program Director: Elizabeth VanWert, PharmD, BCPS

Description of Program

The PGY2 Emergency Medicine (EM) Pharmacy Residency is an organized, directed postgraduate training program that focuses on the development of the knowledge, attitudes, and skills needed to provide pharmaceutical care in both adult and pediatric emergency medicine pharmacy practice. The program is structured in accordance with the ASHP Accreditation Standard for Specialized Residency Training in Emergency Medicine.

Graduation Requirements

- Teaching at College of Pharmacy (1 lecture in critical care elective for 1 semester)
- Rotation based teaching (serve as co-preceptor for one P4 APPE rotation or PGY1 rotation)
- Professional Committee Involvement
- Institutional Committee Involvement (1 residency committee and 1 institutional committee)
- Core topic discussions, in collaboration with Critical Care and Cardiology PGY2 residents
- Deliver at least 1 core topic discussion independently, and 1 in collaboration with other PGY2 resident
- Journal Club – complete 6
- Development of guideline or protocol for Adult or Pediatric Emergency Department
- Completion of EM-related quality improvement project
- Participation in pharmacist code response training (1 – 2 sessions in 2nd half of residency year)
- On-call pager back-up (1-week commitment, approximately 3-6 times throughout the year)
- Present 1 ACCP EM Journal Club (will be waived if appointed as EM Journal Club coordinator)
- EMS Ride-Along Shadow (at least 2 sessions)

Required Rotations

- Orientation (1 month)
- Adult Emergency Medicine I (1.5 months)
- Advanced Adult Emergency Medicine II (1 month)
- Advanced Emergency Medicine III (1 month)
- Pediatric Emergency Medicine (1.5 months)
- Adult ICU (1 month)

- Pediatric ICU (1 month)
- Research (1 month)
- ED Pharmacy Practice Management (1 month)

Elective Rotations (Note – 1 elective MUST be in an emergency department)

- ED-related rotation at Michigan Medicine (1 month in infectious diseases, or an additional ICU rotation)
- Repeat Adult or Peds ED (1 month)
- Emergency Medicine – Urban (1 month)*
- Emergency Medicine – Community (1 month)*
- Poison Center (1 month)*

*rotation availability varies year by year

Staffing Requirements

Approximately every 3rd weekend for no more than 15 weekends, 1 minor holiday, and 5-day major holiday block throughout the year, in both adult and pediatric emergency department satellites

On-Call Requirements

On-call pager back-up to PGY1 residents (1-week commitment, approximately 3-6 times throughout the year)

Meeting Attendance

- Attendance at Great Lakes Pharmacy Residency Conference with presentation of results of one research project
- Attendance at PGY2 Emergency Medicine specific conference (e.g. ACCP, ACEP, SCCM)

PGY2 Investigational Drugs and Research Pharmacy

Program Director: Kim Redic, PharmD

Description of Program

This two-year specialty residency training program in Investigational Drugs & Research Pharmacy is designed to provide the resident with a wide array of experiences in clinical drug research while affording opportunities for collaboration with renowned clinicians and world class experts in research, education, and population health. The program is designed to provide a strong clinical foundation while developing analytical, leadership, teaching, and writing skills. It will also provide experiences in clinical trial research and research pharmacy staffing experiences. The first year is aligned with the PGY1 pharmacy program, with elective and longitudinal experiences in research-related areas. The PGY2 year provides specialized experiences in clinical research. Upon completion of the program, the resident will be prepared to secure a specialized pharmacist position in a variety of clinical research, regulatory, and drug development settings, including industry, academia, and research pharmacy practice.

Graduation Requirements

Graduation requirements are as noted in the Manual, apply to each year separately, and include completion of 80% or more of the ASHP Required Outcomes for each year. It is expected that the requirements for the PGY1 residency be completed wholly within the first year. However, some of the goals and objectives for the PGY2 year can be achieved during the PGY1 year, depending on the rotations selected (e.g. if the PGY1 Clinical Research elective is chosen).

Unless approved by the Research Pharmacy-RAC, the resident is expected to complete separate experiences in each year for each requirement. Separate certificates will be issued upon successful completion of each year.

Required and Elective Rotations for PGY1 Year

- Per Manual

Required Rotations for PGY2 Year

Most experiences can be configured as either blocks or longitudinal experiences, depending on resident interest and other scheduling considerations. Therefore, requirements are noted in terms of “units,” where a unit is either a 1-month block or equivalent (equivalent to approximately 20 days) completed longitudinally.

- Orientation: Operations, Study Management, IRB (2 units)
- Research Pharmacy Operations (1 unit)
- Research Pharmacy Leadership and Practice Management (1 unit)
- Outpatient Research Clinic (1 unit)
- Human Subject Protection and IRBMED Member (1 unit)
- MICHR– Investigator Assistance Program (1 unit)

- Advanced Research Pharmacy: Study Management (1 units)
- Research Quality & Safety (1 unit)

Additional Required Experiences:

- Longitudinal writing project and continuing education presentation (PGY1 and PGY2)
- Longitudinal research or Quality project (PGY1 and PGY2)
- Clinical on-call (PGY1 and PGY2) & code response (PGY1)
- Teaching assignment at the College of Pharmacy (PGY1 and PGY2)
- Resident Leadership and Research Series (PGY1)
- Committee involvement per Manual (PGY1 and PGY2)

Elective Rotations for PGY2 Year

- Clinical Trial Development and Support (1 unit)
- Protocol Review Committee - Scientific Merit (1 unit)
- Any required rotation noted above can be developed into an advanced level elective for residents who wish to develop additional skills or competencies in a specific area.
- Patient Care Rotations: any RAC-approved patient care rotation can be developed into an elective in the PGY2 year, and should be considered for residents who want to develop additional clinical competency in a specific patient population. The patient population should include opportunities for care of research participants and/or should develop skills of relevance in the care of research participants.

Additional opportunities for electives that can be considered/explored based on resident interest and alignment with residency goals and objectives.

Additional Elective Experiences:

- Teaching Certificate in cooperation with the College of Pharmacy (PGY1)

Staffing Requirements

- PGY1: See the Manual
- PGY2: Staffing is an average of one research pharmacist dispensing shift per week. These shifts range from 4-6 hours per shift, occur during the prevailing research pharmacy hours of operation, and will be scheduled around other residency requirements.

On-Call Requirement (PGY2 Year)

Research Pharmacy on-call rotation, which is comprised of 1-week on call assignments an average of every 7-12 weeks.

PGY2 Pain Management and Palliative Care Pharmacy

Program Director: Michael A. Smith, PharmD, BCPS

Program Coordinator: Jillian DiClemente, PharmD

Description of Program

The PGY2 Pain Management and Palliative Care Pharmacy Residency is designed to provide the resident with a wide array of experiences in pain and symptom management, while affording opportunities for collaboration with renowned clinicians and world class experts in research and education. The program is designed to provide a strong clinical foundation while developing analytical, leadership, teaching, and writing skills. It will also provide experiences in pain pharmacy, palliative care, hospice, and institutional policy around pain management. Upon completion of the program, the resident will be prepared to secure a specialized pharmacist position in pain management, palliative care, or hospice

The residency program in pain management and palliative care is designed to develop clinician expertise in pain and symptom management pharmacotherapy in order to practice in the inpatient, outpatient, or hospice setting as a clinical pharmacy specialist.

Graduation Requirements

The completion requirements will be reviewed during quarterly evaluations 3 and 4. Changes to the program will be made at that time if resident is not progressing towards completion.

- Completion of 10 rotations, one month in length (unless noted elsewhere) with July assigned as Orientation and December as Research
- Completion of required and elective rotations
- Submission of a manuscript suitable for publication for the research project
- Submission of a manuscript suitable for publication for the writing project
- Completion of a formal seminar CE presentation
- Completion of research protocol and research report presentations
- Completion of 80% or more of ASHP required outcomes (educational goals and associated objectives)
 - A minimum average score of “5 or proficient” is required for any remaining objectives
- Completion of all evaluations within PharmAcademic
- Completion of the ASHP entering interest form and objective-based self-evaluation
- Completion of staffing requirements
- Participation on an institutional committee
- Hospice and Palliative Medicine Fellows Lecture series attendance
- Major topic discussions

Required Rotations

- Orientation
- Adult Palliative Care I and II
- Pain Management I and II
- Hospice
- Ambulatory Pain and Palliative Care (longitudinal over 6 months or 1-month block)
- Psychiatry

Elective Rotations

3 elective rotations may be chosen if Ambulatory Pain and Palliative Care is done as a block, or 4 if longitudinal

- Adult Palliative Care III
- Pain Management III
- Inpatient Medical Oncology
- Pediatric Palliative Care
- Pharmacogenomics

Staffing Requirements

Approximately every 3rd weekend for no more than 15 weekends, 1 minor holiday, and 5-day major holiday block throughout the year.

PGY1 Pharmacy / PGY2 Health-System Pharmacy Administration and Leadership

Program Director: Stan Kent, RPh, MBA

Program Coordinator: Andrew Lucarotti, PharmD, MBA

Program Coordinator: Melissa Pleva, PharmD, BCPS, BCNSP, BCCCP

Description of Program

This PGY1/PGY2 combined Health-System Pharmacy Administration and Leadership (HSPAL) residency program is designed to prepare residents to become successful pharmacy leaders by providing a wide array of experiences with leaders in pharmacy administration, renowned clinicians, and world class experts in research, education, and population health. Upon completion of the program, residents will be prepared to accept leadership positions in settings throughout the healthcare enterprise. After the 2-year residency, Michigan Medicine has implemented a third year fellowship experience for those completing a dual MBA program.

Requirements for Graduation

In addition to requirements for completion of PGY1 pharmacy residency (stated in the body of the manual), the resident must achieve 80% of all required goals and objectives as well as average a rating of no less than “5” for those objectives not marked as achieved.

Required and Elective Rotations

PGY-1 Required and Elective Rotations		
Required rotations		Longitudinal activities/projects
<u>1 month</u>		Research project and presentation
Adult internal medicine	Critical care	Professional writing project and pharmacist continuing education presentation
Ambulatory care	Medication use policy	
<u>6 weeks</u>		Weekly HSPAL Topic Discussion
Pharmacy Practice Management (first half of the year) and Advanced Practice Management (second half of the year) in the following areas:		<u>Attendance and participation as time allows on following committees:</u>
Inpatient adult/pediatric pharmacy services	Ambulatory care services	
Elective rotations (3)		Pharmacy Management Team
<u>1 month</u>		Pharmacy Executive Council
Direct patient care electives		Professional Organization Involvement (<i>optional</i>)

PGY-2 Required and Elective Rotations			
Required rotations		Longitudinal activities/projects	
<u>6 weeks</u>			
Informatics and technology			
Medication use systems		Coursework for MBA (<i>if enrolled</i>)	
Ambulatory services management		Weekly HSPAL Topic Discussion	
Longitudinal rotations		<u>Attendance and participation on following committees*:</u>	
<u>5-6 months</u>		Medication Expense Tracking and Expense Reduction and Pharmacy Regulatory Readiness <i>*see description below</i>	
Medication safety	Health-system education		
<u>12 months</u>			
Financial management (budgeting & variance reporting)		Pharmacy Management Team	
Human resource management through serving as the 'assistant manager' for a pharmacy team		Pharmacy Executive Council	
		Medication Safety Committee	
Departmental/institutional leadership and personal and professional development		Pharmacy & Therapeutics Committee	
Process improvement project (with suitable written manuscript and presentation)		Clinical Practice Committee	
Staffing and on-call activities of the residency		Medication Distribution Workflow Committee	
Committee leadership		Professional Organization Involvement (<i>optional</i>)	
Elective rotations (3)			
<u>4 weeks</u>			
Academia administration	Home care administration	Medication use policy	Transitions of care
Community pharmacy administration	Managed care administration	Inpatient pharmacy services management	Research pharmacy administration
Infusion services	Pharmacy senior leadership	Policy, regulatory compliance, and medication safety	

Staffing Requirements

	PGY-1*	PGY-2
No MBA	22 weekends (~every other weekend)	15 weekends (~every 3 rd weekend)
WMBA	20 weekends (~every other weekend until May, then 1 weekend per month)	12 weekends (~monthly)
OMBA	15 weekends (~every 3 rd weekend)	17 weekends (~every 3 rd weekend)
Holidays	1 major (Thanksgiving, Christmas, New Year) as a 5-day block +	
	1 minor (Memorial/Labor)	1 minor (Independence Day)
Required Operations	2 x 10 weekday blocks per year	2 x 10 weekday blocks per year

Rotation		
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*Plus additional training days

On-Call Requirements (optional)

	PGY-1	PGY-2
On-call	Clinical on-call pager in 1-week increments Code pager response in 1-week increments Both of these are rotated equally amongst PGY1 residents.	Technician supervisor on-call pager – 1 week Administrator on-call pager – 3 1-week blocks

Meeting Attendance

- Clinical Practice Committee* (PGY1 year – required during admin rotations)
- Medication Distribution Workflow Committee* (PGY1 year – required during admin rotations)
- Medication Expense Tracking and Expense Reduction group (optional in 1st year, required to attend 3 meetings in second year)
- Regulatory Readiness Policy Compliance Committee (optional in 1st year, required to attend 3 meetings in second year)
- Medication Safety (optional)
- Pharmacy & Therapeutics (optional)
- Management team (optional)
- Pharmacy Executive Council^ (required)
- Professional Society Committee Involvement (required)
- HSPA Topic Discussions and Coffee Talks& (required)

*Co- Chair during PGY2 for six months in each Clinical Practice Committee and Medication Distribution Workflow Committee. Residents switch half way through the year.

^Rotating secretary in PGY2

&Scheduled by PGY2 residents

PGY1/2 Requirements and Expectations to Coordinate

- HSPAL All Quarterly Meetings
- HSPAL Site Visits
- PPS scheduling
- On-site interview scheduling/coordination

HSPAL Fellowship Year Information

The following provides details about the third year of this combined program. The third year is called a fellowship year, for lack of a better term. If it was technically labeled a PGY3 year then there would need to be specific goals and objectives included in Pharmacademic and accredited by ASHP as a PGY1-3 residency. This is neither the intent nor the case.

Background

- It is the goal of the Michigan Medicine pharmacy department to provide our HSPAL residents with the best possible learning experience and to provide them with the best academic training available so that they can be successful in future careers as pharmacy leaders in complex health systems.
- Another goal is to be recognized as one of the top 5 combined HSPAL/Master's degree programs in the country. Oversight of pharmacy services in complex health systems requires years of practice and management experience. It also requires skills and in-depth understanding of operations, hospital and pharmacy finances, strategic planning, personnel management, innovative thinking and continuous improvement.
- The MBA is chosen over an MHA or MPA because pharmacists already have a sound knowledge of healthcare and healthcare systems. The MBA focuses more on the business side of management, which are critical skills in the jobs for which this program intends to train residents. Also, the MBA is a more universally applicable degree than an MHA.
- The Ross MBA is the best graduate training program at the University of Michigan to prepare these future pharmacy leaders to fulfill those responsibilities. We want our graduates to have the best chance of competing for the best positions and to be successful in those positions, as they represent the University of Michigan.
- The Ross Business School is rated as a top 5 business school by Financial Times.
- Both the residency program and MBA are designed to be 2 years in length. They are concurrent, but separate programs. The on-line MBA can be completed over more than 2 years as it is not a lock-step program like the weekend MBA program.
- Tuition for the on-line MBA program from the UM Ross business school costs approximately \$116,000-126,000. Michigan Medicine employees do not receive a discount on tuition.
- Michigan Medicine competes with about 30 other HSPAL/M programs for the best resident candidates.
- All other training programs either waive M degree tuition for their residents or the cost is minimal.
- In order for the tuition to be affordable to the resident, and for Michigan Medicine to attract trainees, we agree to cover approximately 80% of tuition costs by supplementing salaries.
- In order to justify the additional salary supplement residents are required to spend a third year working at Michigan Medicine, referred to as a fellowship year.

Fellowship year

- This year is intended to provide the resident with an additional year of experience under the guidance of Michigan Medicine pharmacy leaders.
- The year has the following goals:
 - To have the fellow serve as either an interim manager in an area without a manager or to serve in a leadership role supporting the Department as follows:
 - To manage personnel and an aspect of pharmacy operations
 - To complete a project or projects of importance and need to the department or health system
- During the course of the year the fellow will be assessed for potential as a manager for a permanent role at Michigan Medicine.
- Upon completion of the third year the fellow completes their obligation to Michigan Medicine.
- If the resident does not complete the third year they are required to re-pay Michigan Medicine \$30,000 of the salary supplement paid to them over the year.
- Since the fellowship positions are classified in the Michigan Medicine HR system as pharmacy residents (not managers) they will continue with the same health benefits they had during the first 2 years.
- Paid time off will accrue the same as a starting pharmacist (16 hours/month).
- Compensation - salary the third year will be \$95,000 or as per the letter of acceptance.
- Manager positions occasionally become open due to vacancy or newly created positions.
 - If a manager position becomes available during the PGY2 or fellowship year the PGY2 resident or fellow can apply for the position (along with any other applicants), however there is no guarantee that they will get that job. This is the same process that is followed for all positions.
 - If a PGY2 resident or fellow does get the manager job, then their salary the first year as a manager will be \$95,000.
- Attendance at, and support for, professional development conferences will be handled the same as for other managers. There is neither a requirement nor expectation that the fellow will attend the same conferences that they did as a resident.
- The fellow will participate in HSPAL residency advisory committee meetings. They will also support the topic discussions and coffee talks as any other manager.
- The fellow will meet on a monthly basis with the Chief Pharmacy Officer along with their supervisor to assure they are overseeing personnel and operations as intended as well as to check on the status of assigned work.

PGY2 Informatics Pharmacy

Program Director: Karl Renius, PharmD, BCPS, BCOP

Description of Program

The PGY2 Informatics Residency is designed to provide concentrated training in clinical informatics, health information technology and automation. The program is designed to provide strong foundation in core skills needed for the resident to succeed as an informatics pharmacist while developing skills needed for further growth throughout their career.

Graduation Requirements

The graduation requirements will be reviewed during quarterly evaluations 3 and 4. Changes to the program will be made at that time if the resident is not progressing towards completion.

- Completion of 9 block rotations for 10 months' total duration
- Certification or Proficiency in Epic Inpatient Willow
- Develop and deliver a formal seminar CE presentation
- Completion of an informatics-related quality improvement project
- Completion of a research project, including presentation at a major conference (Great Lakes equivalent) and manuscript submission suitable for publication.
- Completion of staffing requirements

Required Rotations *(one month each unless specified otherwise)*

- Information Science and Foundations of Informatics
- Pharmacy Analytics
- EHR Medication Use Informatics/Technology (2 months)
- EHR Clinical Decision Support
- Medication Use Technology & Automation
- Medication Safety - Informatics/Technology
- Pharmacy, Quality, Regulatory, & Safety
- Informatics Health-System Administration and Leadership

Elective Rotations *(one month each unless specified otherwise)*

- Pharmacy Analytics II
- EHR Clinical Decision Support II
- EHR Medication Use Informatics/Technology II

- Vendor Experience (McCreadie Group)

Staffing Requirements

Approximately every 3rd weekend for no more than 15 weekends, 1 minor holiday, and 5-day major holiday block throughout the year.

PGY2 Pediatric Pharmacy

Program Director: Julia Brown, PharmD

Program Coordinator: Ashley Wester, PharmD

Description of Program

The PGY2 pediatric residency is a twelve-month program based upon American Society of Health-System Pharmacists (ASHP) standards for PGY2 hospital pharmacy residencies and the ASHP Supplemental Standard and Learning Objectives for Residency training in Pediatric Pharmacy Practice. This residency focuses upon development of special competence in clinical therapeutics of pediatric patients, an introduction to clinical research as well as introductory experiences in the management of sophisticated pharmacy service programs. It is required that the resident has already achieved a basic level of competence in institutional and clinical pharmacy practice. The specific program for each resident may vary in structure and area of emphasis based upon the resident's entering level of knowledge, skills, abilities and interests. In addition to meeting the requirements set forth in the "ASHP Accreditation Standard for Post Graduate Year Two Pharmacy Residency Training" the resident must have previously completed an ASHP-Accredited Pharmacy Practice Residency (PGY1). The resident must provide documentation of successful completion of an accredited PGY1 residency prior to beginning orientation.

The main goals of this residency program:

1. Develop pediatric knowledge and build clinical skills required to practice as an independent pediatric practitioner.
2. Emphasize the role of continuous professional development through literature evaluation, didactic lectures, round table discussions, self-learning, and continuous self-reflection.
3. Apply evidence-based guidelines and standards in tailoring treatment plans to optimize pediatric patient care and outcomes.
4. Facilitate the development of leadership qualities through participation in committees, organizations, and other management opportunities.

Requirements for Graduation

- Obtain Michigan pharmacist licensure
- PALS Certification
- ACPE-Accredited 1-hour CE Seminar Presentation
- Research project and manuscript submitted to research mentor and RPD
- Writing project (or additional research project if previously published a review article)
- Poster presentation at ASHP Midyear or other regional conference
- Resident presentation at a national conference
- Completed all staffing required (defined below)
- Fulfilled all requirements related to rotations
- Teaching at College of Pharmacy (3 hours per week for 1 semester)

- Institutional committee involvement (minimum of 1 committee)
- Participation in pharmacist code response training
- Minimum of 3 journal club presentations
- Minimum of 3 case presentations
- Completion of ASHP PGY2 Pediatric topic discussion checklist

Required Rotations

- Orientation (1 month)
- Research (1 month)
- General Pediatric (1 month)
- Pediatric Intensive Care (1 month)
- Neonatal Intensive Care (1 month)
- Pediatric Hematology/Oncology or Pediatric Cardiology (1 month)
- Pediatric specialty outpatient clinic (may be taken as a longitudinal experience)
 - Pediatric Hematology Clinic (second half of year)
 - CHIRP Clinic

Elective Rotations

The program is flexible in design to offer four-to-five months of elective rotations targeted to the resident's interest. Any of the rotations listed above may be repeated or elective rotations can be tailored specifically to meet an individual resident's needs, not limited to:

- Pediatric Infectious Disease/Antimicrobial Stewardship
- Pediatric Cardiology/Pediatric Cardiothoracic Intensive Care Unit
- Pediatric Surgery
- Labor and Delivery
- Solid Organ Transplant
- Bone Marrow Transplant*
- Pediatric Emergency Medicine
- Michigan Poison Center Pediatric Toxicology Rotation**
- Pain Management/Palliative Care
- Acute Pain Management/Medication Safety
- Investigational Drug Service
- Pediatric Administration

*Residents with no previous oncology exposure will need to take oncology prior to considering BMT

** : Subject to availability and RAC approval

Staffing Requirements

- Approximately every 3rd weekend for no more than 15 clinical weekends, 1 minor holiday, and 5-day major holiday block throughout the year

On-Call Requirements (optional)

- On-call pager back-up (1-week commitment, approximately 6 times throughout the year)

Meeting Attendance

- Attendance at national meeting with poster or platform presentation

PGY2 Ambulatory Care Pharmacy

Program Director: Kellie Kippes, PharmD, BCPS, BCACP

Program Coordinator: Emily Ashjian, PharmD, BCPS, BCACP, CDCES

Description of Program

The PGY2 Ambulatory Care Pharmacy Residency is designed to provide a strong clinical foundation and help the resident further develop research, teaching, leadership, and writing skills. Clinical rotations are longitudinal in nature and include core and elective experiences that focus on direct patient care in the Patient Centered Medical Home (PCMH) and specialty clinics. Each resident is offered the opportunity to customize their elective rotations to their clinical interest(s), selecting from opportunities in chronic kidney disease, cystic fibrosis, hematology/oncology, oral chemotherapy, pain/palliative care, solid organ transplant, specialty pharmacy, and transitions of care. A multitude of teaching opportunities are available to the resident, who will receive a faculty appointment as an Adjunct Clinical Instructor at the University of Michigan College of Pharmacy.

Graduation Requirements

The completion requirements will be reviewed during quarterly evaluations 3 and 4. Changes to the program will be made at that time if resident is not progressing towards completion.

- Completion of 80% or more of ASHP required outcomes (educational goals and associated objectives) as well as a minimum average score of “5 or proficient” for those objectives not marked as achieved
- Completion of required and elective rotations with July assigned as Orientation and December as Research
- Teaching at the College of Pharmacy for 1 semester
- Submission of a manuscript suitable for publication for the research project
- Submission of a manuscript suitable for publication for the writing project
- Completion of a formal seminar CE presentation
- Completion of research protocol and final research presentations
- Completion of all evaluations within PharmAcademic
- Completion of the ASHP entering interest form and objective-based self-evaluation
- Completion of staffing requirements
- Completion of core Ambulatory Care topic discussions
- Completion of 4-5 journal clubs
- Participation on an institutional and/or professional committee
- Participation on Michigan Medicine Residency committee
- Participation in precepting of P4 APPE students at the Student Run Free Clinic (3-4 sessions)

Required Rotations

Scheduled as longitudinal rotations unless otherwise noted

- Orientation (July)
- Research/Writing (December)
- Independent Patient Centered Medical Home (PCMH)
- Primary Care – PCMH Clinic (Internal Medicine and Family Medicine options; 2 longitudinal rotations)
- Anticoagulation (3-4 month block)
- Clinical Administration (3-4 month block)
- Medication Optimization
- Psychiatry (3-4 month block)
- Transitions of Care Clinic

Elective Rotations (3-4 months; 1/2 day per week)

- Chronic Kidney Disease
- Cystic Fibrosis
- Hematology/oncology
- Oral chemotherapy
- Palliative Care
- Pain clinic
- Solid organ transplant
- Specialty pharmacy
- Transitions of care

Staffing Requirements

Residents will staff in the outpatient Taubman pharmacy approximately every 3rd weekend, including 1 minor holiday and one major holiday block throughout the year.

Meeting Attendance

- Attendance at ASHP Midyear Clinical Meeting (MCM) with poster presentation at Vizient poster session
- Attendance at Great Lakes Pharmacy Residency Conference with presentation of results of one research project

PGY2 Oncology Pharmacy

Program Director: Bernie Marini, PharmD, BCOP
Program Coordinator: Anna Brown, PharmD, BCOP

Description of Program

The Michigan Medicine PGY2 Oncology Pharmacy Residency is designed to provide residents with a diverse set of experiences in hematology/oncology, while allowing collaboration with top experts at an NCCN-designated Comprehensive Cancer Center. The program will challenge residents to develop high-level clinical and literature evaluation skills through a wide variety of inpatient and outpatient experiences. The strong affiliation with the University of Michigan College of Pharmacy allows residents to hone educational skills through didactic lectures, round table discussions, and precepting of fellows, residents, students. Residents will become experts in academic performance through completion of high-level research and writing endeavors throughout the year. The program also affords the opportunity to work with experts in oncology practice management and design of unique services. Upon completion of the program, residents will be among the leaders and best in hematology/oncology practice, poised to secure a specialized pharmacist position in hematology/oncology.

Program Structure

Rotation experiences are tailored according to resident interests in conjunction with the residency program director and coordinator in July.

- Longitudinal rotations (Fall is considered August through December & Winter is considered January through May or February through June)

Rotation	Required or Elective
Symptom Management Clinic	Required (4 hours per week; ½ year)
Lymphoma Clinic	One required for longitudinal experience (4 hours per week; ½ year)
Multiple Myeloma Clinic	
Leukemia Clinic	
BMT Clinic	
Gyn-Onc Clinic	
Melanoma Clinic	
Breast Cancer Clinic	
Head & Neck Cancer Clinic	
GU Cancer Clinic	
GI Cancer Clinic	
Sarcoma Clinic	
Lung Cancer Clinic	
Oral Chemotherapy Clinic	

- Block rotations – 1 month unless otherwise specified and may repeat any required rotation

Rotation	Required or Elective
Orientation	Required (July)
Research month	Required (December)
IP Adult Hematology (MHE)	Required
IP Adult Hematology PA Service (MHP)	Elective
IP Adult Oncology (MON)	Elective
IP Adult BMT	One BMT rotation required
IP Pediatric BMT	
IP Peds Hematology/Oncology	Required
Oncology Administration	Required (2 weeks minimum)
Ambulatory Oncology Blue (GI/GU/Lung)	Required (Blue & Gold; 2 months; do not have to be consecutive; Maize/Leukemia is elective)*
Ambulatory Oncology Gold (GYO/Melanoma/Breast)	
Ambulatory Hematology Maize/Leukemia/BMT (Leukemia/Lymphoma/ Myeloma/BMT)	
Hematology Consult Service	Elective (2 weeks or 1 month)
Palliative Care Service	Elective (2 weeks or 1 month)
Immunocompromised Infectious Diseases	Elective [§] (2 weeks or 1 month)
Medical ICU (MICU) Service	Elective (2 weeks or 1 month)
Teaching/Academia	Elective (Typically offered in November or January depending on academic scheduling – check with preceptor)

*The following ambulatory oncology clinics are required, either longitudinally or in the month-long blocks: breast cancer, colorectal/pancreatic cancer, melanoma, lung cancer, ovarian cancer, prostate cancer

§Infectious diseases topics will also be covered in IP Adult Hematology and IP BMT rotations

Graduation Requirements

- Research Project
- Writing Project
- Major Topic discussions
- Occur every other month (2 residents alternate)
- Topics that must be covered throughout the year, either on rotation or in major topic discussions are shown in supplement II.
- ONC-STAR will be evaluated throughout the year on a quarterly basis
- On-Call
 - PGY2 Oncology residents serve as the primary pharmacist backup for PGY1 residents during their clinical on-call shift to help guide the PGY1 residents in answering complex clinical questions during the assigned on-call week, as well as to help facilitate a productive discussion of clinical on-call cases at the on-call case discussion.
- Contentedness/Well-Being
 - Residents will be responsible for identifying a goal to help promote their well-being and contentedness throughout their residency year. Mental health and well-being are an important aspect and oncology pharmacists should look to identify enjoyable activities outside of work to maintain optimal health and well-being to be successful.
- Staffing
 - Residents will work approximately 1 weekend per month in the ambulatory infusion setting, ensuring the safe preparation of hazardous oncologic medications by overseeing pharmacy technicians in this area. Residents will undergo training in orientation month and by the end of the month will be able to independently verify and dispense oncologic medications in the infusion pharmacy. By the final quarter of the year, residents should require minimal oversight from pharmacy preceptors and be able to respond to emergency situations, including anaphylaxis, extravasations, and other emergent situations in the infusion pharmacy with confidence.
- Teaching
 - Course assignments and term (Fall or Winter) will be determined at the beginning of the year by the College of Pharmacy in conjunction with the Resident Advisory Committee.
 - Residents are expected to attend each class session, facilitate discussion of pharmacy students, effectively manage classrooms, understand classwork and curriculum development, and assist in grading/evaluating students. In certain classes, residents are expected to give didactic lectures on various topics. Throughout the year, residents will be expected to gain confidence in teaching methods and take a larger role in facilitating class discussions. By the end of the year, residents should be able to manage a classroom independently.
- Association/Committee Work

- Residents will serve as active members of the Cancer Pharmacy Committee, in addition to an external regional or national committee.
- Residents are expected to attend necessary committee meetings (may be in person or electronically via skype/phone) and actively participate in advancing pharmacy practice through the specific mission and objectives of the association/committee.
- Research Pharmacy
 - Residents will coordinate with the PGY2 IDS/Research Pharmacy Resident to complete required readings and topic discussions pertaining to the scientific merit of protocols, compliance and blinding, managing NCI studies, and other miscellaneous topics. Other resident expectations include:
 - 2 sessions of investigational drug dispensing with a research pharmacist in B2
 - Complete IRB assigned readings and attend IRB symposium and/or IRBMED meeting, schedule permitting
 - Complete assigned readings on audits and monitor preparation and conduct
 - Prepare a study for audit and attend a QARC audit
 - Complete assigned readings on order set development and prepare an ERx template and a Beacon paper order template
 - Complete assigned readings on dispensing guidelines and develop a dispensing guideline

Meeting Attendance

The following meetings are required for PGY2 Oncology Residents. Residents will present one or more posters at the Midyear Clinical Meeting and the HOPA Annual Conference and present on their research project at the Great Lakes Conference.

- Midyear Clinical Meeting
- HOPA Annual Conference
- Great Lakes Pharmacy Resident Conference

PGY1 Managed Care Pharmacy **(University of Michigan Prescription Drug Plan)**

Program Director: Stephen Lott, PharmD, MS

Program Description

The PGY1 Managed Care Residency Program at the University of Michigan Prescription Drug Plan (PDP) offers a unique experience working in the stimulating pharmacy benefits world from a payer perspective. The PDP PGY1 residency program abides by the standards set forth by ASHP and AMCP for accredited PGY1 Managed Care programs. The pharmacy benefit team interacts with world-renowned experts in the fields of medicine, pharmacy and managed care to achieve the best mix of state of the art care and cost-effectiveness. In many instances, we work with researchers within our organization who are pivotal in the drug research, development, and approval process. By collaborating with researchers, we obtain the unique perspective that only a few managed care residencies have.

The University of Michigan PDP manages and administers prescription drug benefits for university staff, faculty, retirees and dependents. As of 2021, the plan is administered by three pharmacists, one pharmacy practice resident, and one compliance officer, with the support of two faculty-led committees. The plan is self-administered by the Benefits Administration Office, which allows the university to closely manage an evidence-based quality prescription drug benefit in a fiscally responsible manner. The PDP covers outpatient drugs for more than 117,000 members, including faculty, staff, retirees and dependents, at three campuses and throughout Michigan Medicine. The PDP collaborates with Michigan Medicine, which includes the university hospitals and clinics throughout Michigan. The PDP also collaborates with the University of Michigan's College of Pharmacy with didactic teaching opportunities, hands-on patient-care learning experiences, and research initiatives.

Rotations

The managed care resident has a mix of concentrated (1-month) and longitudinal required rotations. They have 2 options for electives that will be determined with the RPD.

- Plan Administration I: Orientation and Healthcare Basics
- Plan Administration II: Pharmacy Networks and Vendor Relations
- Formulary Management and Business Analytics
- Plan Administration III: Quality, Compliance, and Patient Safety
- Pharmacy Innovations and Partnerships I, II
- Clinical Program Development I: Traditional and Ambulatory Care
- Specialty Pharmacy Practice I, II
- Clinical Program Development II: Specialty Pharmacy and Patient Outcomes

Graduation Requirements

To successfully complete the PGY1 Managed Care (UMPDP) residency program and achieve a certificate of completion, the resident must achieve each of the following:

- 1) Complete 90% or more of objectives as “Achieved for Residency” (ACHR), with no outstanding objectives marked “Needs Improvement” (NI) by the completion of the final learning experience.
- 2) Complete all “critical few” objectives as ACHR by the completion of the final learning experience.
 - a. *R1 Patient Care*: R1.1.3, R1.1.5, R1.1.7, R1.3.1, R1.3.2, R1.3.3, R1.3.4, R1.4.1, R1.4.2
 - b. *R2 Leadership and Management*: R2.2.1, R2.2.2, R2.5.1
 - c. *R3 Advancing Managed Care Practice and Improving Patient Care*: R3.1.1, R3.1.2, R3.1.3, R3.1.4, R3.1.5, R3.1.6, R3.1.7, R3.1.8, R3.2.2, R3.4.1, R3.4.2, R3.4.3, R3.4.4
 - d. *R4 Teaching, Education, and Dissemination of Knowledge*: R4.1.3
- 3) Satisfy all travel requirements and longitudinal project obligations as described in the residency manual, including the presentation of the research-in-progress at a national conference (i.e, ASHP Midyear, AMCP Annual Meeting), presentation of the final research project at the Great Lakes Pharmacy Resident Conference, and submission of a final manuscript suitable for publication.
- 4) Submit all final projects, presentations, and other work products to the program as part of the final residency portfolio.

Program Design

The residency program will follow the core structure outlined in the common Resident Manual. The program differs in that managed care program is divided into longitudinal and concentrated learning experiences (LE). The required LEs for PGY1 in managed care include Plan Administration I-III, Formulary Management and Business Analytics, Clinical Program Development I and II, Specialty Pharmacy Practice I, Academia, Research I-III, and Professional Development and Committee Involvement.

All LEs are completed at a University of Michigan location, including Michigan Medicine hospitals and clinics, the College of Pharmacy, and the Benefits Administration Office. The LEs for the residency program are scheduled by the RPD with the intent of balancing workload among rotational and longitudinal experiences. Each year, residents receive a written schedule depicting all LE dates.

Staffing, Holidays and Vacation

The resident staffs one half-day per week in the ambulatory pharmacy for 4 months. The resident is entitled to the seven official university holidays: Independence Day, Labor Day, Thanksgiving

and the day following, Christmas Day, New Year's Day and Memorial Day. The PDP PGY1 resident is not required to work any university holidays. The managed care resident is not entitled to the season days offered to campus faculty and staff. Vacation days may be used for residents who observe holidays other than official university holidays.

The managed care resident may follow the vacation request procedures of the PDP team except during rotations at Michigan Medicine or the College of Pharmacy. During those LEs, the resident will follow the procedure described in the overall Residency Program Manual. All vacation days and absences shall be reported to the RPD so that all duty hours can be tracked.

Meeting Attendance

The PDP PGY1 pharmacy resident is required to attend two national conferences (ASHP Midyear and one of AMCP Nexus or AMCP Managed Care & Specialty Pharmacy Annual Meeting), as well as the regional Great Lakes Pharmacy Resident Conference (GLRPC). In years where the AMCP Annual Meeting is scheduled next to or during the GLRPC, the resident will attend the AMCP Annual Meeting pending approval to miss GLRPC from the Michigan Medicine RAC. The resident is required to promote the residency program and recruit prospective applicants at ASHP Midyear. The resident is required to submit their research project for presentation at all three conferences. The resident will also be required to attend the local residency showcases, as described in the common PGY1 program manual.

Due to the unprecedented nature of the COVID19 pandemic and subsequent impact to the University of Michigan and Michigan Medicine budgets, all physical travel requirements are waved for the 2021-2022 residency program year. The PDP PGY1 program will make every effort to support the resident's attendance at local and national conferences, pending COVID activity, conference status, and the University's travel policy.