The PGY-1/2 Health-System Pharmacy Administration and Leadership Residency at the William S. Middleton Memorial Veterans Hospital is a 24-month residency with inpatient, outpatient, ambulatory care, leadership, teaching, and administrative experiences. The first year focuses on clinical exposure and the second year focuses on building clinical leadership, operations, and supervisory experience. There is a clinical leadership track and an operational leadership track during the second year of the program that allows flexibility in tailoring the program to the strengths and interests of the resident. The program also places emphasis on developing inclusive leadership skills and how to create a culture of belonging in the workplace. These experiences are coordinated under the direct and immediate supervision of the Pharmacy Chief who is the Residency Program Director. The primary mission of the residency is to develop leadership and clinical management skills that will support a professional and productive practice in pharmacy management, clinical leadership, business operations, medication use safety, and quality assurance. This mission is realized by providing experiences and responsibilities that develop and augment the resident’s clinical and communication skills, problem solving abilities, professional knowledge base, judgment, and insight by ensuring resident exposure in targeted clinical and administrative roles. By providing an atmosphere for the resident to grow and develop individual talents (while receiving guidance and structure as required), the resident will become more cognizant of their strengths and weaknesses, and will be able to continually apply themselves to further enhance their management and leadership practice skills.

The Residency enhances patient care by developing the knowledge and skills that are needed to achieve competency in the provision of pharmacy leadership and clinical management. Graduates of the program shall be able to develop, implement, monitor, and maintain operational and clinical pharmacy services, and shall be able to successfully apply the principles of strategic planning, personnel development, needs based communication, fiscal management, regulatory compliance, program development, evidence-based outcome assessment, and Pharmacoeconomics.

**Program Description**

Successful graduates of the Residency should be prepared to seek the following positions:

- Associate Chief of Pharmacy
- Clinical Program Manager
- Inpatient Pharmacy Supervisor
- Outpatient Pharmacy Supervisor
- Formulary/Pharmacoeconomics Pharmacist
- Residency Director
- Medication Safety Pharmacist
- Clinical Pharmacist with advanced training in administration and leadership

**PGY-1/2 Health-System Pharmacy Administration & Leadership Residency Application Procedure**

Applicants must be a graduate of an American Council of Pharmaceutical Education accredited School of Pharmacy with a Pharm.D. degree, must be a U.S. citizen, and participate in an on-site or virtual interview.

Pharmacists interested in applying for this residency program are required to complete their application through PhORCAS and include the below attachments:

- Submit a personal letter of intent
- Submit (3) PhORCAS References
- Submit a copy of their curriculum vitae
- Submit an official copy of their pharmacy transcript (s)

See ASHP website for application deadlines.

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By completing this residency, I developed the knowledge, skills, and abilities to effectively lead and advance Pharmacy staff, and I felt confident applying for Coordinator and Supervisor positions...

- Former Graduate of HSPAL residency
**PGY-1/2 Health-System Pharmacy Administration and Leadership Residency - Acute Care Rotations**

**Inpatient Orientation** - Throughout this rotation, residents become familiar with the process for inpatient pharmacy including order entry and verification, outpatient processing, kinetic monitoring, formulary processes, medication reconciliation upon admission and discharge, discharge counseling, overview of technician functions including our admission history technicians, controlled substance protocols, and other responsibilities. Time is also spent becoming acclimated to our inpatient anticoagulation service where our pharmacists are responsible for the ordering, monitoring, and documenting of warfarin use daily. Residents maintain close contact with their primary preceptor, as well as gain experience with inpatient staff within their respective services. The exposures that residents receive in this orientation are applied to their subsequent general inpatient rotations.

**Acute Care General Medicine** - The purpose of this rotation is to prepare the resident with skills necessary to become a competent inpatient clinical pharmacist. This rotation will allow the resident to gain experience in managing pharmacotherapy for acutely ill patients, to develop independent judgment and accountability, and to improve the verbal and written communication skills necessary to be an effective clinical pharmacy practitioner. Training activities will involve rounding with a medical team and monitoring patient medication profiles daily to ensure the provision of evidence-based, patient-centered medication therapy management. This will include monitoring for appropriate dosing and indication, efficacy, adverse effects, and cost-effectiveness. The resident will answer drug information questions, perform pharmacokinetic monitoring, obtain medication histories, and provide medication education and counseling for their patients. The resident will learn to be a liaison between the pharmacy service and other health-care providers, serving as an active member of an interdisciplinary team. The resident will also be involved in precepting pharmacy students and providing staff education such as journal article discussions or educational inservices.

**Critical Care** - The patient population on this unit is a mix of surgical (cardiac, general/thoracic, and neurosurgery) and medical (cardiac, pulmonary, infectious disease). Patients on this unit are managed by medical, surgical or specialty teams. An oversight team, comprised of a critical care pharmacist, an intensivist or internist, a nutritionist, intensive care nurses and a respiratory therapist, provide review of care during rounds on Monday through Friday. The critical care pharmacist, in addition to participating in rounds and providing review of care, performs medication histories, tube feeding consultations, pharmacokinetic consultations, precepts pharmacy students, answers drug information questions and completes medication discharges. The PGY-1 resident is responsible for contributing on rounds as well as the other functions of the critical care pharmacist outlined above for patients that they are following.

**Community Living Center** - The purpose of this rotation is to provide the resident with pharmacy experience in a long-term care environment. The Madison VA Community Living Center (CLC) is a 26 bed facility that cares for patients who are no longer acutely ill, but have continued needs for skilled nursing, rehabilitation or hospice care. This rotation will allow the resident to gain experience in managing pharmacotherapy for these patients, to develop independent judgment and accountability, and to improve the verbal and written communication skills necessary to be an effective clinical pharmacy practitioner. The resident will be assigned patients and be responsible for all their pharmacy care. This includes their initial intake note which requires the resident to document a comprehensive review of all of a patient’s disease states and medications. Additionally, the resident will complete daily monitoring including anticoagulation and pharmacokinetic notes, discharge counseling, and attending interdisciplinary meetings and discussing any patient care needs to the entire team.

**Cardiology** - The cardiology rotation at the Madison VA will help familiarize residents with the management of medication therapy in patients with cardiovascular disease. The rotation will expose residents to arrhythmias, heart failure, ACS, ACLS, heart and lung transplantation, anticoagulation, and cardiothoracic surgery concepts. The resident will be an involved member of the medical team through daily monitoring and inpatient rounding activities. Patients on the cardiology service are followed by the cardiology general care and intensive care units, and the resident will be responsible for the patients assigned by the preceptor. Other responsibilities include journal clubs, topic discussions, and patient education activities.

**Infectious Disease & Antimicrobial Stewardship** - This experience is an opportunity to participate in the continuing development of an antimicrobial stewardship program with the objectives of improving safety and preserving effectiveness of antimicrobial therapy. The resident works closely with our infectious disease pharmacists to review patient profiles for appropriateness of antimicrobial medications, participates in bi-weekly interdisciplinary antimicrobial stewardship rounds, and completes quality improvement projects to be presented at antimicrobial stewardship interdisciplinary.
Anticoagulation - This is a pharmacist-driven clinic responsible for managing all VA patients receiving warfarin and direct oral anticoagulants (DOACs) from our hospital; the clinic provides care for over 2200 Veterans. Residents see patients in clinic and complete telephone follow-up to assure safe and effective use of antithrombotic therapy. They also initiate therapy and participate in transitions of care from inpatient to outpatient. Residents also coordinate interruptions for procedures, using low molecular weight heparin if warranted. Residents are involved with patient education as needed.

Diabetes - Patients with complicated and difficult to control diabetes are referred to this clinic. The clinic uses a multidisciplinary approach to the management of Type 1 and Type 2 Diabetes. Residents see patients in both a Pharmacist-managed clinic and in a clinic staffed by both Pharmacist and Endocrinologist attendings. The resident is responsible for all aspects of diabetes-related care. The program is structured to provide the resident the opportunity to monitor the safety and efficacy of drug therapy in ambulatory care settings, including medical record review, patient interview and targeted physical assessment, interpretation of laboratory data, consultation with staff, and patient education to achieve optimal patient outcomes. In addition to face-to-face clinic appointments, telephone follow up is completed using patient home glucose monitoring.

Renal/Hypertension - Patients with complicated or difficult to control hypertension are referred to this clinic for evaluation and treatment. Patients enrolled in this clinic often are taking three or more anti-hypertensive medications and may have secondary hypertension due to renal artery stenosis, hyperaldosteronism or other conditions. Residents manage all aspects of the patients care in conjunction with an attending physician and pharmacist preceptor.
**PGY-1/2 Health-System Pharmacy Administration and Leadership Residency - Ambulatory Care Rotations**

**Pain Management** - The Pain Management team is an interdisciplinary team comprised of a neurologist, rehabilitation medicine specialist, nurse practitioner, clinical psychologist, and clinical pharmacist. Patients are referred to the clinic for chronic pain management with an emphasis on improvement of quality of life. Residents are responsible for reviewing patients’ pain medication histories prior to their first visit with the clinic and assisting with selection of appropriate medication treatment. Residents are also required to perform telephone follow-ups with patients following any changes in their pain medication regimen.

**Formulary Management** - Residents are responsible for a variety of duties during this rotation, including education and guidance of prescribing through electronic consults and ordering tools; review of non-formulary drug requests for appropriateness, safety, and cost effectiveness; monitoring medical center medication utilization to identify areas for improvement; management of national cost saving initiatives; working on formulary conversions; completing a medication use evaluation; and management of the adverse drug reaction program. Requirements for completion of this rotation include completion of one drug monograph, one medication use evaluation, documentation of adverse drug reactions, clinical reviews pertaining to non-formulary or restricted medication requests, completion of new patient orientation notes, assisting with management of manufacturer back orders, PBM/FDA Patient Safety Alerts, and pharmacists clinical interventions. Residents may also be required to attend Madison P&T, regional P&T, and regional PBM meetings during this rotation.

**Transplant** - In this clinic, Veterans with a history of lung, heart, or liver transplant are seen by a clinical pharmacist to review appropriateness of medications, address adherence concerns, and manage comorbid conditions such as diabetes, hypertension, hyperlipidemia, osteoporosis, and more. Residents also have the ability to see medical inpatients who are admitted to the hospital with a recent transplant to educate them on their transplant regimen.

**Tobacco Cessation** - This is a clinic run by the pharmacy residents and a clinical pharmacist. Residents provide tobacco cessation counseling and evidence-based medication therapy through group sessions and individual phone counseling. Participation in group sessions may be through face-to-face meeting, teleconference, and video conference.

**Mental Health** - This rotation provides residents with a broad interdisciplinary experience. Residents experience medication management in a pharmacist run clinic, including participation in our centralized intake system. Objectives include experiential learning of different DSM-V diagnosis, clinical interview skills, psychopharmacology initiation, monitoring and evaluation, as well as completion of a mental health-related project.
PGY-1/2 Health-System Pharmacy Administration and Leadership Residency - Administrative Rotations

**Health-System Pharmacy Administration** - The purpose of this rotation is to equip the PGY-1/2 Health-System Pharmacy Administration resident with skills necessary to become a leader in health-system pharmacy. The resident will become familiar with the pharmacy practice management processes involved across all pharmacy services at the William S. Middleton Veterans Hospital. Training activities will include topics on personnel management, communication, resource management, strategic planning, project development and management, leadership, safety and quality management, and medication use processes. Residents will continue to develop professional maturity by following a personal philosophy of practice, balancing multiple experiences, performing in multiple environments, demonstrating initiative and assertiveness, and exhibiting a strong commitment to the profession of pharmacy.

**Drug Utilization** - Formulary management activities for the Drug Utilization Rotation include: pharmacoeconomic analysis, medication safety, quality improvement and quality assurance projects, development of guidance prescribing tools including criteria for use and/or ordering tools, and budgetary forecasting. Other activities include education and guidance of prescribing through electronic consults and ordering tools; review of non-formulary and restricted drug requests for appropriateness, safety, and cost effectiveness; monitoring medication utilization to identify areas for improvement; management of national cost saving initiatives; oversight of formulary conversions; medicine use evaluation activities; management of drug shortages and manufacturer recalls; and management of the adverse drug reaction program.

**Outpatient Pharmacy Management** - The purpose of this rotation is for the resident to develop advanced skills in outpatient medication distribution management. This will include facilitating outpatient performance improvement activities, resolving Outpatient Pharmacy-related patient concerns, and managing and ensuring optimal and timely customer service in the pharmacy telephone care program. The resident will also be responsible for all legal and regulatory responsibilities of the Outpatient Pharmacy, including the management and tracking of controlled substances and investigational drugs, and the maintenance of Outpatient Pharmacy quality metrics. The resident will spend two weeks immersed in Outpatient Pharmacy operations and another two weeks as the acting outpatient pharmacy supervisor.

**Clinical Management** - Through the course of the Clinical Pharmacy Management rotation, the resident applies management philosophy to a variety of administrative aspects of clinical practice. Areas of focus include pharmacy credentialing and privileging, clinical service development, clinical guideline development and/or revision, internal and external quality standards, quality assurance and improvement, as well as regulatory, safety and accreditation requirements. During the rotation, the resident will attend and participate in several clinical management meetings to gain an appreciation for contemporary administrative issues affecting clinical pharmacy. The resident will also continue to develop personal leadership qualities and business/political savvy through advocating on behalf of Pharmacy Services during collaboration with interdisciplinary groups of health-system professionals.

**Medication Safety and Regulatory Compliance** - Throughout the Medication Safety rotation, the PGY-1/2 resident learns how to evaluate and implement system processes to improve patient safety, avoid potential medication events, and comply with all regulatory and VA requirements. Areas of focus include internal and external quality standards, quality improvement, legal, regulatory, safety and accreditation requirements, adverse drug events, medication error reporting, and safe use of technology. The PGY-1/2 resident familiarizes themselves with the anonymous, electronic patient incident reporting system. The resident fully participates in the multi-disciplinary medication event root cause analysis team, if applicable. The resident monitors trend in medication events in order to identify opportunities to prevent future occurrences. The resident works with the hospital Organizational Improvement Manager and their team, as well as with the Chief of Pharmacy.

**Electives** - The PGY-1/2 Health-System Pharmacy Administrative Resident may choose to repeat a rotation in order to gain more targeted experience in a particular aspect of Pharmacy practice, whether it is inpatient, outpatient, ambulatory care or administratively based. The scheduling and selection of electives will be determined by the Residency Program Director in concert with Pharmacy and Clinical Managers.
Inpatient Pharmacy Management - The purpose of this rotation is to empower the resident to develop advanced skills in the management of medication distribution and staff development. Primarily, the resident will observe and then facilitate inpatient pharmacy operations, incorporating inpatient performance improvement activities, resolving inpatient pharmacy-related concerns from patients and health-system professionals, ensuring timely and accurate record keeping of controlled substance inventory and destruction, troubleshooting medication shortages, and responding to medication events. Further, the resident will assume a supervisory role and engage in progressive staff discipline to improve productivity and identify both inefficient processes and sub-optimal practices. The resident will spend two weeks immersed in Inpatient Pharmacy operations and another two weeks as the Acting Inpatient Pharmacy Supervisor. The resident will be expected to familiarize themselves with areas of regulatory oversight regarding Inpatient Pharmacy operations (VA OIG, TJC, 797, etc). Further, the resident will comprehend and facilitate interaction between Pharmacy Service and the employee Union and/or Human Resources, if so needed. Finally, as the availability of staff for the Inpatient Pharmacy can occasionally change (due to sick calls, late arrivals, etc), the resident will be responsible for staffing coordinating and for shifting positions and responsibilities to ensure the continuous maintenance of high-quality patient care services.

University of Wisconsin-School of Pharmacy: Drug Information Course Teaching Assistant & Madison VA IPPE Program Coordinator - The purpose of this rotation is to equip the resident with the skills necessary to function cohesively in an academic setting and to be able to appraise and assess faculty involvement with medical institutions. The resident will comprehend and apply the skills necessary to appraise and critique health literature in order to facilitate student learning and to further their abilities to draw appropriate conclusions from peer reviewed publications. Training activities will include topics on biostatistics, facilitation of active discussions, providing constructive feedback, time management, academic leadership, and effective communication. Residents will use online modalities to interact with, grade, and respond to student concerns. The resident will show their commitment to the growth and development of Pharmacy students as a means of ensuring strong cohesion and advancement of the profession. Additionally, the resident will serve as the Madison VA IPPE Program Coordinator.

Information Technology and Pharmacy Informatics - This rotation focuses on the utilization of technology and automated systems and the positive impacts these additions have on medication distribution and patient safety. Primarily, the resident will gain understanding and experience as it relates to quality assurance, proper maintenance and optimization of the design of the Madison VA hospital system. Further, the resident will work closely with the Pharmacy Informatics Manager to facilitate the management of technology-based operations and concerns throughout the Madison VA Hospital as they are generated. Additionally, using skills in interdisciplinary operations management, the resident will collaborate with Pharmacy and Hospital Leadership on designing and implementing components of an information technology plan including a new piece of technology. Finally, the resident will gain appreciation for systems that not only allow for greater efficiency, but also improve patient outcomes.

Personnel Management (longitudinal) - The objective of this rotation is to provide a real-world experience serving as a supervisor for a team of pharmacy student technicians. The supervisor will assume responsibility for all aspects of supervision including training, scheduling, professional development, performance assessment and all conduct-related matters. The resident will familiarize themselves with personnel management principles through attending HR training sessions including training for new supervisors. The resident will be supervised by the manager overseeing the operation in which the pharmacy student technicians work in.

Pharmacy Recruitment and Retention Office (elective) - The purpose of the virtual PRRO rotation is to learn about factors relating to the management and coordination of personnel activities of VA pharmacy departments to include recruitment, placement and termination of employees, classification and salary administration, interpretation of personnel policies, and employee/labor relations functions. Further, areas of focus include the continuation of learning in the workplace as associated with continual learning is the effect that these opportunities have on morale and advancement of professional practice. Additionally, some of the areas the resident will participate in include, but are not limited to: preceptor development, competencies, performance improvement, peer review, CPD, employee satisfaction, team building, and leadership development.

Other Elective Rotations: Clinical Pharmacy Practice Office, VISN 12, Pharmacy Society of Wisconsin, and more!
**Teaching Responsibilities**

One of the goals of the residency program is to provide residents with the opportunity to develop and improve their communication and teaching skills. As part of their residency appointment, Madison VA residents have an appointment as Clinical Instructors at the UW School of Pharmacy. With this appointment, residents spend five weeks over the course of the year teaching in the Pharmacotherapy Laboratory at the School of Pharmacy. This course focuses on clinical application of various therapeutic topics and skills. The appointment also grants residents access to UW resources including the medical library. In addition, residents are involved in a number of ongoing teaching and in-service activities including the following:

- Residents provide in-services to hospital administrative personnel, nurses, pharmacy personnel, students, and providers as assigned by rotation preceptors.
- Residents may help precept pharmacy students completing observational or clerkship rotations at the VA hospital.
- Residents have an extensive role in precepting students through our inpatient and ambulatory care internship programs, which are designed for students who have completed their second year of pharmacy school.

The teaching certificate is a separate, voluntary program that complements the experiences obtained in the Pharmacotherapy Laboratory. Residents are taught strategies to teach the adult learner, facilitate discussions and design a lecture. As part of this program, residents take turns presenting the course topics and facilitating discussions. In addition, guidance is provided on the development of a teaching portfolio and a completed teaching portfolio must be submitted to receive a certificate. A certificate, signed by the Dean of the School of Pharmacy, will be presented to the resident after successful completion of this program.

Topics discussed in the Teaching Certificate Program include:

- Creating a lesson plan
- Creating abstracts & posters
- Objectives & outcomes
- Methods to assess student learning
- Facilitating classroom learning
- Matching your teaching style to the learning environment
- Providing effective feedback
- Designing and implementing an effective rotation
Residency Research Project

Successful completion of an original research project is a requirement for attainment of a residency certificate. The purpose of the longitudinal project is to develop problem solving skills and to expose residents to research methodology. Each resident will choose a primary preceptor for their residency project who will serve as the Primary Investigator for IRB and VA Research and Development Committee approval.

Residents are encouraged to consider several factors when selecting a topic for their major project. First, the topic selected should be one of personal interest to the resident.

The needs of the Pharmacy Service should also be considered when selecting a topic. The topic should be relevant to medication use, patient safety, or resource utilization management. Finally, resident projects should be selected with the intent of submitting the results for publication in an appropriate professional journal. All major projects must be presented to invited guests locally, as well as at the Wisconsin Pharmacy Residency Conference. A manuscript drafted in AJHP format must be submitted for successful completion of the residency.

In-Services

Each resident presents one formal in-service during the year on a clinical topic of the resident’s choosing. The purpose of the formal presentations is to improve the resident’s ability to prepare for a formal presentation with handouts, to provide an oral presentation to peers, to provide an opportunity for education for the other residents and staff, and to increase the resident's familiarity with various types of literature associated with pharmacotherapy. Residents will present their in-service at the Resident Education Series meeting.

Journal Clubs

The PGY1 resident is required to attend and participate residency journal clubs, which occurs once weekly at the Residency Education Series meeting. The resident will be required to present one journal article over the course of the first year and support interactive discussions of presented articles.

Case Presentations

The PGY1 resident is required to attend and participate in weekly clinical cases presented at the Resident Education Series meeting. Residents take turns preparing cases to present. One case presentation is required during the first year. These sessions provide an opportunity to learn with and from fellow residents and preceptors about interesting, challenging, or unique clinical questions.