

PGY-1 Pharmacy Practice Residency

Ambulatory Care (Program #45204)

The pharmacy practice residency program at the William S. Middleton Veterans Hospital (also known as the “Madison VA”) has been in existence since 1983 and has trained hundreds of residents. This first year residency program has been designed to develop ambulatory care practitioners with the high level of skill required to manage patient care as integral members of interdisciplinary teams. Graduates of this program have been successful in both clinical and academic positions.

The VA clinics provide primary care as well as a wide variety of medical subspecialty care for Veterans throughout Wisconsin and northern Illinois. Residents co-manage patients as part of an interdisciplinary team in a practice that has evolved over the years, allowing pharmacists to practice at the top of their scope. In addition to completing patient appointments, residents write progress notes for patients they assess and (in collaboration with preceptors) have authority to write prescriptions, order laboratory and other diagnostic tests, consult other services when indicated, and develop therapeutic and monitoring plans for patient follow-up, all within a scope of practice. Care is provided via face-to-face, telephone, and video appointments. Residents take an active, direct role in patient care. Within primary care itself, patients are seen in the Medication Management service for a variety of medical problems. As part of this service, residents provide interim care for patients between visits to primary care providers. Care in specialty clinics includes diabetes, transplant, allergy/asthma, rheumatology, epilepsy, osteoporosis, pain management, mental health, and anticoagulation clinics. Residents also have the opportunity to provide care as part of a home-based primary care team and to develop formulary management skills. Residents may also choose 2 electives from various other clinics, including infectious disease, GI, dermatology, nutrition, and women’s health.

The residency is affiliated with the University of Wisconsin (UW) School of Pharmacy, where residents serve as clinical instructors. In this capacity, residents teach in the Pharmacotherapy Lab. An optional, year-long teaching certificate program is offered by the UW School of Pharmacy, with a majority of residents completing it. Participants attend series sessions, assess their own teaching experiences, and develop a teaching philosophy as a requirement for this certification. Additional teaching experiences include opportunities to deliver didactic lectures at the School of Pharmacy as well as to provide in-service education to pharmacy staff. Residents are required to participate in journal clubs and case conferences.

The Madison VA pharmacy residency programs use the inverted research model (see Inverted Research Model brochure for more information). This allows residents to gain project management experience in two longitudinal projects during one residency year. Residents work with preceptors and the research team on these projects and present at the Wisconsin Pharmacy Residency Conference in April of each year. A final manuscript is a requirement for completion of the residency.



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Our Commitment to Diversity, Equity, and Inclusion

At the William S. Middleton Memorial Veterans Hospital, we are committed to fostering and sustaining an environment which celebrates diversity, provides equitable opportunities for employment and promotion, and supports inclusiveness in pharmacy culture. We embrace our differences as individuals and unite as a pharmacy team toward a common goal: to deliver optimal, patient-centered care for our nation’s Veterans.



PGY-1 Pharmacy Practice Residency Application Procedure

Applicants must be a graduate of an American Council of Pharmaceutical Education accredited School of Pharmacy with a PharmD degree. Applicants must have an aptitude and motivation for ambulatory patient care. COVID-19 vaccination is required (or an exemption along with regular COVID-19 testing) for employment in the VA. Some of the criteria considered in choosing residents include knowledge of professional practice, communication skills and ability to apply theory to practice, leadership ability, interest in the program, confidence, and professionalism.

To apply, a cover letter stating career goals and the Application for Health Professions Trainees form (Form 10-2850D) must be completed. In addition, three letters of reference and college transcripts are required. The application process should be completed through PhORCAS. An interview is also required. See ASHP website for application deadline.

PGY-1 Pharmacy Practice Residency Rotation Descriptions

Anticoagulation – This clinic is pharmacist-managed and is responsible for managing all VA patients receiving warfarin and direct oral anticoagulants (DOACs) from our hospital. The clinic provides care for over 700 Veterans. Residents conduct telephone visits primarily 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.

Epilepsy Clinic – Residents evaluate patients with a wide range of seizure disorders. Residents will also gain experience evaluating patients with various psychiatric comorbid conditions including major depression, bipolar disorder, and anxiety. The resident is responsible for obtaining a medical history, symptom and disease history, performing a short neurological exam, and monitoring anti-epileptic drug therapy for these patients. The resident works closely with a team consisting of a clinical pharmacist practitioner, nurse case manager, and an attending neurologist to provide optimal patient care. The resident is also responsible for assisting in precepting fourth year pharmacy students who rotate through this clinic.

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, 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.

Heart Failure – The Heart Failure (HF) Clinical Pharmacist Practitioner (CPP) serves as a provider within the Madison VA multidisciplinary Cardiology service. Cardiology providers refer patients to the HF CPP for optimization of guideline-directed medical therapy. Residents will provide care primarily through telephone encounters with in clinic encounters as appropriate. Residents will evaluate home vital data, pertinent labs, review of symptoms, and medication tolerability to develop a plan for medication optimization. Residents will also provide education on home monitoring and lifestyle factors for optimal HF self-management.



Hypertension – Patients with renal disease and difficult to control hypertension are referred to this clinic. Because this clinic is housed with the Renal service, residents work closely with a pharmacist preceptor as well as Renal attendings and fellows. The resident will assess a patient's blood pressure during telephone appointments primarily. Residents will evaluate pertinent labs and make medication adjustments as needed. Residents will also provide education on blood pressure monitoring and lifestyle factors that can contribute to hypertension.

Home-Based Primary Care (HBPC) – The HBPC team is an interdisciplinary team that provides team-based, patient-centered care to veterans. It is comprised of nurse case managers, nurse practitioners, occupational therapists, social workers, clinical psychologists, clinical dietitians, a clinical pharmacist, and a physician. Residents work closely with the clinical pharmacist to perform medication reviews, educate patients about their medications, monitor chronic disease states, and participate in home visits for new and established patients.

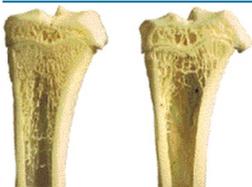
PGY-1 Pharmacy Practice Residency Rotation Descriptions

Pulmonary – The clinic takes place on Tuesday mornings and consists of phone and video appointments (VA Video Connect) with Veterans for the management of pulmonary conditions such as COPD, asthma, interstitial lung disease (ILD), and pulmonary sarcoidosis. The Madison VA Pulmonary service is a multidisciplinary team comprised of physicians, nurse case managers, clinical pharmacists. The resident will see patients via telephone and virtual modalities. Residents will also interact closely with clerical staff, nurse case managers, and consult other specialties or primary care teams when indicated.

Medication Management (Primary Care) – Residents manage care of chronic disease states for veterans by ordering and interpreting labs and prescribing and adjusting medications. They are responsible for the education and follow-up of their patients; residents staff care plans with attending physicians or clinical pharmacists. Patients seen in this clinic are referred by their primary provider for co-management of chronic conditions including but not limited to hypertension, hyperlipidemia, diabetes, hypothyroidism, BPH, gout, and COPD.



Mental Health – This rotation provides residents with a broad interdisciplinary experience. Residents gain experience in medication management in a pharmacist-run clinic, including participation in our centralized intake system. Objectives include experiential learning of different DSM-IV axial diagnosis, clinical interview skills, psychopharmacology initiation, monitoring and evaluation, as well as completion of a mental health-related project.



Osteoporosis – In this clinic, Veterans with osteoporosis or history of non-traumatic fractures are evaluated for secondary causes of osteoporosis and for management of their reduced bone density. Residents assess patients, order bone density studies and other tests needed to look for risk factors, and provide and monitor bisphosphonates and other therapies.

Outpatient Pharmacy – The Madison VA Outpatient Pharmacy primarily dispenses medications to patients seen in clinic, the emergency room, and hospital discharges. Residents will gain experience at the counseling window where pharmacist medication consultation is completed as well as prescription processing. Other areas residents may be exposed to include finishing electronic prescriptions, verification station, controlled substance vault, and pharmacy telephone station.

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.



Rheumatology – Patients with a wide variety of rheumatologic disorders are cared for in this clinic. Residents provide direct patient care including physical assessment and development of therapeutic and monitoring plans. These patients are co-managed with a Pharmacist preceptor and Rheumatologist attending physicians.

Tobacco Treatment – This is a clinic managed by the pharmacy residents and a clinical pharmacist practitioner. 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 and video conference. This is a free service for Veterans.



Transplant – This rotation will allow the resident to gain experience in managing pharmacotherapy for transplant patients as part of an interdisciplinary team. The clinical pharmacy practitioner is responsible for medication review and reconciliation, acute and chronic disease state management, medication monitoring, ensuring adherence, and patient education. Residents will gain exposure to managing immunosuppression, anti-infection prophylaxis, steroid-induced diabetes, steroid-induced osteoporosis, electrolyte management, among others. Patients come from across the country to receive heart, lung, or liver transplants through the Madison VA; therefore, clinical pharmacy practitioners are involved in managing many transitions of care.

PGY-1 Pharmacy Practice Residency Rotation Descriptions

CBOC Medication Management – This elective rotation has all the main components of Medication Management in Madison, but is completed at one of the rural community-based outpatient clinics (CBOC). This rotation will help you develop the skill set needed to excel in within a rural primary care setting. You may select which CBOC you are most interested in. Car pooling with preceptors is available.

Dermatology – Residents work with attending dermatologists in addition to dermatology fellows and medical residents. Emphasis is placed on recognizing common dermatologic problems and their management.

GI – The resident works with the clinical pharmacist practitioner in this clinic to co-manage patients with the gastroenterology team. This clinic is intended for the treatment and monitoring of Veterans with chronic viral hepatitis C, chronic viral hepatitis B, and advanced liver disease. Pharmacists operate under an independent scope of practice to start and adjust antiviral therapy. Pharmacists also provide education and monitoring for those enrolled in clinic.



Infectious Disease/Home Infusion – The ID clinic serves as the primary care clinic for all HIV+ patients at the Madison VA. It is also a consult clinic for patients with severe or chronic infectious diseases. All patients on home IV antibiotics are followed by the ID clinic. Experiences during the rotation may include HIV, home infusion, diabetic or ischemic ulcers, wound care, and treatment of conditions including osteomyelitis, endocarditis, and more.

Mental Health – This rotation provides residents with an opportunity for an additional experience in mental health. Residents travel to a VA clinic in Rockford, Illinois, to see patients in the mental health clinic at that site. Residents benefit from the guidance of the Madison VA mental health pharmacy preceptor as well as the other mental health providers (including a nurse practitioner) based at the Rockford clinic.

Nutrition – In this rotation, the resident works with a registered dietician, who sees patients for the dietary management of a variety of disease states, such as diabetes and heart failure, weight loss as an extension of the MOVE! program, prevention of additional weight loss, and pre- and post-bariatric surgery management. It is popular for residents interested in managing diabetes and learning more about a diabetes-friendly diet and how to carb count.

Oncology – The rotation is designed to develop the resident's ability to educate patients and caregivers on chemotherapy regimens and potential toxicities, recommend appropriate supportive care therapies, recognize and assess toxicities related to chemotherapy, and how to appropriately manage these toxicities. The resident will be responsible for assessing patients in the Hem/Onc PharmD clinic which includes telephone and face to face visits (face to face visits are usually reserved for new patients initiating chemotherapy). This includes assessing toxicities, laboratory values, and making recommendations for treatment adjustments. The resident will also spend time in the infusion clinic working with the clinical pharmacist and infusion nurses.

Physical Assessment – This rotation provides residents with hands-on experience and increased exposure to physical assessments in clinical practice. The resident will see patients with a primary care physician.

Precision Medicine/Precision Oncology – The Precision Medicine/Precision Oncology Elective rotation is a 6 week elective learning experience in the PGY1 Ambulatory Residency Program. The precision medicine pharmacist provides interpretations for germline pharmacogenomic implications on medication therapy. Additionally, the oncology precision medicine pharmacist recommends targeted treatment options for cancer patients based on tumor genomics. During this rotation in clinic, the resident will work alongside the precision medicine pharmacist and assist in the interpretation of germline and tumor genomics. The resident will become familiar with available resources including the Clinical Pharmacogenomic Implementation Consortium (CPIC) guidelines, available tumor genomic databases such as OncoKB and cBioPortal, and will participate in discussions on the successes and barriers for pharmacogenomic implementation into practices.

PGY-1 Pharmacy Practice Residency Rotation Descriptions

Research Pharmacy/Investigational Drug Services (IDS) – The Research Pharmacy rotation at the Madison VA is a 6-week elective learning experience for PGY-1 Pharmacy Residents. The objective of this rotation is to expose residents to the role of the Research Pharmacy (also known as Investigational Drug Services, or IDS, pharmacist) in the VA Research infrastructure. Additionally, residents will be exposed to feasibility, regulatory, and ethical issues surrounding clinical research. Throughout this rotation, residents will gain experience with clinical trial conduct, regulatory requirements related to research, management of investigational agents, and collaboration with other healthcare professionals adjacent to the research process.

Specialty Medication Management – The purpose of this rotation is to provide the resident with experience in managing high cost and unique injectable therapies, caring for patients with complex disease states receiving care from specialty clinics including but limited to Allergy, Dermatology, GI, and Rheumatology Clinic. Resident will complete assessment of pharmacotherapy for appropriateness, conduct laboratory monitoring, perform functional assessments, and provide medication counseling for both new and refill specialty medications. Care delivery is primarily by VA Video Connect and telephone encounters, with potential for face-to-face appointments as well.



Women's Health – Residents will gain experience in managing chronic disease states with a focus on providing care to female patients through clinic, telephone and video encounters. They will order and interpret lab results, prescribe and adjust medications, and are responsible for the education and follow up of their patients. In addition to direct patient care activities this experience will provide opportunities for participation in team meetings, women's health focused topic discussions, and answering clinical questions received from care teams.

PGY-1 Pharmacy Practice Residency: Resident Teaching Roles

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 at least 2 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 introductory and advanced pharmacy practice experiences at the VA hospital.
- Residents have an extensive role in precepting students through the hospital's student internship program that is designed for pharmacy students who have completed their second year of pharmacy school.



Teaching Certificate Program with the University of Wisconsin

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 philosophy. 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
- ◆ Facilitating classroom learning
- ◆ Providing effective feedback
- ◆ Objectives & outcomes
- ◆ Methods to assess student learning
- ◆ Matching your teaching style to the learning environment
- ◆ Designing and implementing an effective rotation



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PGY-1 Pharmacy Practice Residency: Other Activities

Residency Research Project

The Madison VA pharmacy residency programs use the inverted research model, or IRM (see Inverted Research Model brochure found on the residency website for more information). In the IRM, incoming residents complete a project that has already progressed through background research, protocol development, and IRB approval (if applicable).

During the first half of the year, residents are involved in data collection, data analysis, presentation, and manuscript submission as they finish this project. During the second half of the year, residents start a project to be finished the next residency year, performing the background research, developing the protocol, and obtaining IRB approval (if applicable). This model allows residents to gain project management experience in two longitudinal projects during one residency year. Residents work with preceptors and the research team on these projects and present at the Wisconsin Pharmacy Residency Conference in April of each year, which is held in conjunction with the Pharmacy Society of Wisconsin's Educational Conference.



In-Services

Each resident presents a minimum of two formal presentations during the year on a 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.

Journal Clubs

Residents are required to attend and participate in the Pharmacy Residency Journal Club. This activity is coordinated by the Education and Research Coordinators. Residents present journal articles and support interactive discussions of presented articles. The Journal Club meets weekly during the residency year and is regularly attended by residents, pharmacists, and students.

Case Conferences

Residents and preceptors meet once a month to discuss interesting patient cases, clinical pearls, or new information learned during rotations. This activity is coordinated by the Education and Research Coordinators. Residents take turns preparing cases to present. These sessions provide an opportunity to learn with and from fellow residents and preceptors about interesting, challenging, or unique clinical questions.

