

UW Health: Advanced Practice Pharmacy Clerkships

UW Health Contact

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UW Health encompasses an academic medical center, multiple specialty and primary care clinics, retail pharmacies, and a wide array of innovative pharmacy services. We are a pharmacy department nationally recognized in the areas of clinical pharmacy practice, pharmacy leadership and residency training.

Student Role

Fourth-year pharmacy students on rotation are vital members of the pharmacy team, directly assisting in the care we provide to patients. All students round on inpatient rotations. Students on rotation have access to academic medical center resources including Grand Rounds presentations, educational conferences, journal clubs, physician resident teaching sessions, and primary literature references.

Student daily activities include but are not limited to:

- Creating therapeutic plans
- Making recommendations to providers
- Rounding with the health care team on inpatient rotations
- Documenting medication outcomes
- Providing answers to formal and informal pharmacotherapy questions
- Educating patients to improve transitions-of-care
- Completing or assisting in ongoing site quality improvement or research projects

UW Health Preceptors

We have a highly trained pharmacy staff, with 85 percent of inpatient pharmacists having completed residency training. While 10 percent of pharmacists across the country are board certified, 85 percent of our pharmacists have completed board certification. Our preceptors have published articles in Clinical Infectious Diseases, Journal of Oncology Pharmacy Practice, Annals of Emergency Medicine, Journal of the Pharmacy Society of Wisconsin, Journal of American Pharmacists Association, Pharmacotherapy and the American Journal of Health System Pharmacists.

Preceptors present regularly at the American Transplant Congress, Hematology/Oncology Pharmacy Association Annual Conference, ASHP National Residency Preceptors Conference, ASHP Midyear Conference, ID Week, American College of Clinical Pharmacy Annual Meeting, American Pain Society Annual Meeting, Pharmacist Society of Wisconsin meetings and the American Pharmacists Association Annual Meeting. Our department also contributed more than 6,000 hours of community service in 2014

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Advanced Practice Pharmacy Clerkships: **Acute Care 740**

Cardiology

- **Patient population:** Acute coronary syndrome (myocardial infarction, cardiac arrest, unstable angina), CHF, arrhythmia patients
- **Student role:** Teaching rounds with attendings, residents and medical students (approximately one to three hours per day), extensive opportunities for medication regimen review, recommendations on additional or alternative therapies to providers, admission and discharge medication reconciliation and consultation, first dose teaching, therapeutic drug monitoring
- **Unique student opportunities:** Frequent opportunities to manage warfarin; opportunity to see a cardiac cath; advanced students may be able to round with CHF team; attend weekly MD educational conference; approximately 10 scheduled didactic discussions; often able to participate in unit code response team
- **Typical hours:** 7am-3:30pm, 40-45 hours per week based on patient care needs
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student needs

Medicine

- **Patient population:** Diverse – multiple complex acute and chronic disease states across a wide spectrum of age (adolescents to elderly); disease states include end-stage liver disease, infectious disease, asthma/COPD exacerbations, pain, cystic fibrosis, AKI/CKD/ESRD/HD and GI (Crohn's, ulcerative colitis)
- **Student role:** Attend work rounds with medical residents, students and attendings (approximately five hours per day), extensive opportunities for medication regimen review, recommendations on additional or alternative therapies to providers, admission and discharge medication reconciliation and consultation, first dose teaching, therapeutic drug monitoring
- **Unique student opportunities:** Attend topic discussions with attending physicians and their medical students/residents, approximately eight scheduled didactic discussions, weekly SOAP note reviews, opportunity to shadow acute care for the elderly consult service and HIV clinic
- **Typical hours:** 7am-4pm, 45–50 hours per week
- **Night or weekend flexibility:** Students can work evenings/overnight with their medical teams while they are on call; limited weekends to accommodate student needs

Neurology

- **Patient population:** Stroke, general neurology (Epilepsy, Parkinson's, Multiple Sclerosis), and neurosurgery
- **Student role:** Round twice daily (approximately one to two hours per day total), first on multidisciplinary rounds (physical therapy, occupational therapy, speech/swallow, case management) and then with physician residents and attendings; extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers; admission and discharge medication reconciliation and consultation; first dose teaching; therapeutic drug monitoring
- **Unique student opportunities:** Approximately eight scheduled didactic discussions; opportunity to attend Neurology Grand Rounds; frequent opportunity to manage warfarin; opportunity to shadow a pharmacist in Epilepsy Clinic
- **Typical hours:** 7am–3:30pm, 40–45 hours per week
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student needs

General Surgery

- **Patient population:** Surgical patients with various disorders affecting the abdominal organs. We have multiple surgical teams with each team sub-specializing in one of the following areas. Esophageal, gastric and bariatric surgeries; Hepatopancreaticobiliary disorders; Endocrine disorders of the thyroid, parathyroid and adrenal glands; Colorectal and inflammatory bowel disorders; General/Emergency General surgery providing services for the management of hernias, ulcers, inflammatory bowel diseases, appendicitis, small bowel and colorectal cancers/masses/polyps, hemorrhoids, anal disorders, and disorders of the spleen and gall bladder.
- **Student role:** Actively participate in rounds; complete a daily review of assigned patients (problem list, pharmacotherapy, procedures, labs, vitals, enteral/parenteral access); monitor medications daily for indication, dosing, efficacy, safety/adverse effects, potential drug interactions, drug administration/compliance issues, procurement/cost considerations; communicate therapeutic recommendations to the prescriber; demonstrate ability to complete thorough admission medication histories; admission and discharge medication reconciliation; discharge patient counseling for general surgery patients; coordinate efforts with social workers, discharge planners, home care agencies, pharmacies and clinics to ensure successful outpatient drug therapy and continuity of care; and provide first dose counseling
- **Unique student opportunities:** Care patients with complicated surgical and medical, and nutrition needs; interaction with the interdisciplinary team (including physicians, nurses, therapists, social worker, and nurse case manager) several times per day; daily rounds with the pharmacist; topic discussions pertaining to patient case load; journal club with the interdisciplinary; by request: Pain Team, Diabetes Management Service, Surgical Nutrition (TPN team), Health Psychology
- **Typical hours:** 7am-4pm, 40-45 hours per week with opportunities to pick up hours in the evening.
- **Minimum rotation requirements:** Assigned curriculum pertaining to surgical patients and as assigned by the School of Pharmacy or preceptor

Rehabilitation Hospital

- **Patient population:** Patients who have experienced stroke, brain and spinal cord injuries, amputations, complex orthopedic injuries and other conditions requiring inpatient rehabilitative services
- **Student role:** Round with multidisciplinary teams; extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers; admission and discharge medication reconciliation and consultation; first dose teaching; therapeutic drug monitoring
- **Unique student opportunities:** didactic topic discussions based on patient population and student interest; opportunity to attend multidisciplinary meetings; frequent opportunity to manage warfarin; opportunity to shadow pharmacy manager
- **Typical hours:** 8am–4:30pm, 40–45 hours per week
- **Night or weekend flexibility:** No

The American Center (TAC)

- **Patient population:**
 - Orthopedic surgery – Joint arthroplasties, ORIF, and minimally invasive spine surgery
 - General surgery – Gastric and bariatric surgeries; thyroid, parathyroid and adrenal glands surgery; general surgery (hernias, appendicitis, cholecystitis, etc.)
 - Medicine - multiple complex acute and chronic disease states across a wide spectrum of age (young adults to elderly); disease states include infectious diseases, asthma/COPD exacerbations, CHF exacerbations, pain, substance abuse disorders and AKI/CKD
- **Student role:** Round with multidisciplinary teams, extensive opportunities for medication regimen review, recommendations on additional or alternative therapies to providers, admission and discharge medication reconciliation and consultation, first dose teaching, smoking cessation consult, therapeutic drug monitoring
- **Unique student opportunities:** Didactic topic discussions based on patient population and student interests, weekly SOAP note reviews, opportunity to shadow surgeon/anesthesiologists during surgery
- **Typical hours:** 8:30am-5pm, 40 hours per week
- **Night or weekend flexibility:** Students encouraged to try working a variety of shifts including evenings/overnight; limited weekends to accommodate student needs

Advanced Practice Pharmacy Clerkships: **Ambulatory Care 741**

Oncology Clinic

- **Location:** UW Carbone Cancer Center (Primary). Students may also have exposure to community practice at 1SP Cancer Center (~1 mile away from University Hospital).
- **Patient population:** Students interact with patients being seen at the Carbone Cancer Center. Students will be exposed to lung, head and neck, breast, gynecologic, gastrointestinal, genitourinary, skin, hematologic cancers and bone marrow transplant
- **Student role:** Students have multiple responsibilities within the oncology clinic. For one, students are responsible for seeing patients in the infusion center and ensuring appropriate supportive care medications are available and refilled prior to the patient discharging. On average, students will manage at least 30 infusion center patients daily. While on rotation, students will interact with oncology clinic pharmacists, residents, nursing and providers. Students will work with clinic pharmacists to appropriately manage and follow-up on patient treatment regimens - including oral oncolytics, supportive care therapies, immunization screening and administration, and service the daily needs of oncology clinics. Additionally, students will participate in disease-state presentations, grand rounds and topic discussions.
- **Unique student opportunities:** As mentioned above, students are responsible for seeing patients in the infusion area to ensure appropriate supportive care therapies are available to the patient at discharge. Students also interact closely with clinic providers; clinical trials; gain exposure to hospice care patients; and build great relationships with faculty, residents and nursing staff
- **Typical hours:** 8am-4:30pm, Monday to Friday
- **Weekend flexibility:** No

Primary Care Clinic (also includes Northeast and 1102 S. Park)

- **Location:** Variable (see below for details)
- **Patient population:** Adult primary care patients throughout UW Health. Pharmacists provide telephonic post-discharge follow-up care for high risk patients, provide appropriate care management of hypertension and lipids cases in cardiovascular risk patients, and complete face to face encounters when patients and caregivers are referred to them by members of the care team.
- **Student role:**
 - The student will be expected to participate in the same activities as the primary care pharmacist during the course of this rotation. Students will spend time at approximately 2-4 clinics acting directly as the provider, under a delegation protocol, to adjust medications as needed through pharmacy-run hypertension office visits. Furthermore, students will participate in comprehensive medication reviews, adherence visits, statin screenings, and post discharge medication reconciliation for complex patients.
 - Opportunities for interprofessional work are vast on site and through the electronic health record by creating evidence-based recommendations and answering drug information questions from physicians and advanced practice providers. Lastly, students will participate in weekly topic discussions and guideline reviews on a variety of pharmacotherapy topics with other students and site preceptors. Students choosing this rotation should expect to improve on written and verbal communication skills.
 - **Students are assigned to one of the listed primary care pharmacists for the duration of the block and will follow the preceptor's schedule across the assigned clinic locations. Students should expect to travel to at least two different locations per week and are responsible for providing their own transportation.** Therefore, it is highly recommended that students choosing

this APPE have their own vehicle. Parking is available at most clinics. UW Health Clinic locations where students may rotate include but are not limited to the following: Madison, Verona, West Towne, Fitchburg, Oregon, University Station, Union Corners, Odana, East, Northeast, Yahara, West, and 1102 S. Park. Students should also expect to spend time at the UW Health Pharmacy Services Building in Middleton.

- **Expected Outcomes:**
 - Know and understand potential medication therapy problems that are examined upon chart review of a patient
 - Know and understand current guidelines for the management of diabetes, hypertension, hyperlipidemia, asthma, geriatric syndromes and immunizations
 - Perform medication therapy chart reviews on patients, present findings, and develop patient-centered medication recommendations
 - Know and understand how to accurately and concisely document both for provider and internal follow-up
 - Know and understand appropriate follow-up of prior recommendations, including sending prescriptions, ordering labs, communicating changes with patient and contacting prescriber
- **Typical hours:** 8 hours per day to be completed between 8:00 am-5:00pm, Monday to Friday
- **Weekend flexibility:** No

Advanced Practice Pharmacy Clerkships: **Health-System Pharmacy 742**

Health-System Pharmacy at University Hospital:

- **Student Role:** This rotation is an opportunity to rotate with pharmacy management and leadership team, pharmacy operations, and the drug policy program. Students will also gain experience in leading a pharmacy department project. In addition to projects, the student will attend various interdisciplinary and administrative meetings. Projects will focus on advancing pharmacy services, inventory management, performance improvement projects, strategic planning, assessing compliance with regulatory standards, and others based on department needs and student interest.
- **Expected outcomes:** Gain a thorough understanding of the role of an inpatient pharmacy manager within an integrated health system. Learn strategies for advancing pharmacy services; demonstrate understanding of the medication use process in a large medical center; gain exposure to regulatory compliance; understand the role of the pharmacist in drug policy and medication use evaluations; understand the role of automation in relation to inventory and narcotic control; and gain further experience in basic supervisory skills.
- **Unique student opportunities:** Gain insight to inpatient pharmacy management, experience with leading a department project, hands on experience with pharmacy automation and compounding (sterile and nonsterile), and completion of a medication use evaluation.
- **Typical hours:** Monday–Friday, 7am-3:30pm or 8am-4:30pm; 40-45 hours per week

Health–System Pharmacy at The American Center:

- **Student Role:** This is primarily a project-based rotation where students gain experience and understanding in both inpatient and ambulatory pharmacy operations management. In addition to projects, the student will attend various interdisciplinary and administrative meetings. Projects will focus on advancing pharmacy services, inventory control, providing staff in-services, performance improvement projects, strategic planning and assessing compliance with The Joint Commission’s regulatory standards.
- **Expected outcomes:** Gain a thorough understanding of the role of an inpatient and ambulatory pharmacy manager within an integrated health system. Learn strategies for advancing pharmacy services; demonstrate understanding of financial management; gain exposure to regulatory compliance; understand the role of automation in relation to inventory and narcotic control; and gain further experience in basic supervisory skills.
- **Unique student opportunities:** Gain insight in both ambulatory and inpatient management in one rotation, experience how a small institution operates within a large health system, hands on experience with pharmacy automation (MedCarousel, anesthesia carts, etc.), provide inservice to nursing, medical or pharmacy staff, free parking, on the bus line
- **Typical hours:** Monday–Friday, 7am-3:30pm or 8am-4:30pm; 40-45 hours per week

Advanced Practice Pharmacy Clerkships: **Community Practice 743**

Outpatient Pharmacy

- **Location:** UW Health University Hospital
- **Patient population:** Inpatient discharges, outpatient surgery clinics and specialty care: transplant, pediatrics, HIV, oncology, hematology, urology, ENT, orthopedics, cardiology and employees
- **Student role:** Extensive opportunities for medication regimen review and consultation; frequent interaction with other pharmacists, doctors and residents within UW Hospital and Clinics; monitoring and recommending on additional or alternative therapies to providers; nonprescription recommendations to patients; documentation and billing for MTM services; provide immunizations
- **Unique student opportunities:** Billing for pharmaceutical care services; shadowing in specialty clinics; frequent drug information questions; electronic medical record (access to labs and patient charts); use of pharmacy innovation (ParataMax dispensing system); compounding of medications
- **Typical hours:** Student hours are flexible, but usually 8:00am–4:30pm or 9:00am – 5:30pm Monday through Friday
- **Weekend flexibility:** Yes

Oncology Retail Pharmacy

- **Location:** UW Carbone Cancer Center
- **Patient population:** Students interact with patients being seen at the Carbone Cancer Center. Students will be exposed to lung, head and neck, breast, gynecologic, gastrointestinal, genitourinary, skin, hematologic cancers and bone marrow transplant
- **Student role:** During this experience, students will be responsible for ensuring patients understand both supportive care and oral oncolytic therapies being prescribed. Through phone consults and in-person counseling, students will serve as an extension to the retail and clinic pharmacists. Students will also gain exposure to managing patients who have undergone a bone marrow transplant and are in need of post-transplant immunizations. If certified, students can provide these immunizations. Being certified to provide immunizations is not a requirement for this rotation. Other experiences students will have while on rotation include: gaining familiarity with oncology grant fund programs, Celgene REMS management, specialty pharmacy medication distribution, and the UW drug repository program. Overall, students are heavily immersed in oncology patient care and will interact regularly with other oncology clinic pharmacists, providers, residents and nursing staff.
- **Unique student opportunities:** Exposure to specialty medication management, drug repository program, grant access, REMS management, and post-BMT immunizations. This rotation is especially unique as 95% of population served are oncology patients. Students are expected to participate in disease-state presentations, topic discussions, and grand rounds.
- **Typical hours:** 0830 -1700 Monday through Friday
- **Weekend flexibility:** No

The American Center Pharmacy

- **Location:** The American Center
- **Patient Population:** inpatient discharges, outpatient surgery clinics, cardiology clinic, urology clinic and employee prescriptions
- **Student role:** medication regimen review; evaluate and prepare prescriptions, patient consultation; answer drug information questions; administer immunizations

- **Unique student opportunities:** implementation of new services including documentation and billing for MTM services, inventory control, free parking, and on the bus line
- **Typical hours:** Monday through Friday 8:30-5pm
- **Weekend flexibility:** No

West Clinic Pharmacy

- **Location:** West Clinic
- **Patient population:** Internal medicine, women's health, pediatrics, diabetes, rheumatology, dermatology, vascular medicine, allergy and women's health
- **Student role:** Extensive opportunities for medication regimen review; evaluate and prepare prescriptions and counsel patients; answer frequent drug information questions; provide immunizations
- **Unique student opportunities:** One pharmacist and one technician on-site improves mentorship opportunities; great relationships with faculty, residents and nursing staff; clinic shadowing opportunities; blood pressure checks; brown bag consultations; weekly discussion of non-prescription therapies with the preceptor; free parking
- **Typical hours:** Student hours are flexible; site is open from 9am-5:30pm, Monday to Friday
- **Weekend flexibility:** No

West Towne Pharmacy

- **Location:** West Towne Clinic
- **Patient population:** Internal medicine, immediate care and other specialty clinics
- **Student role:** Extensive opportunities for medication regimen review; evaluate and prepare prescriptions and counsel patients; answer frequent drug information questions; provide immunizations
- **Unique student opportunities:** Shadowing activities with clinic providers; great relationships with faculty, residents and nursing staff; free parking
- **Typical hours:** Student hours are very flexible; site is open from 9am-7pm, Monday to Friday and 9am-5pm on weekends.
- **Weekend flexibility:** Yes

Advanced Practice Pharmacy Clerkships: **Leadership Elective 760**

Ambulatory/Community Pharmacy Administration

- **Student role:** This is primarily a project-based rotation where students will participate as an integral component of the ambulatory pharmacy leadership team and assist in the decision-making processes in the outpatient care setting. This involves attending various interdisciplinary and administrative meetings. Projects result in pharmacy service expansion or extending the influence of pharmacy within the health system.
- **Expected outcomes:** Gain a thorough understanding of the role of an ambulatory pharmacy management team within an integrated health system; learn strategies for advancing pharmacy services; demonstrate understanding of financial management; gain exposure to regulatory compliance and performance management processes; develop basic supervisory skills and management training; improve leadership skills; improve project management skills.
- **Unique student opportunities:** Attendance at a variety of meetings as developed during a weekly calendar review; shadow in ambulatory care clinics; observe personnel management including hiring and performance appraisals.
- **Typical hours:** 8:30am-5pm

Clinical Management

- **Student role:** The student will participate as an integral component of the inpatient decentral pharmacy leadership team during this rotation. The student will shadow various clinical managers and work on projects that improve pharmacy patient care services. The student will attend various interdisciplinary and administrative meetings. Projects could include development of policies and procedures, staffing plans, staff development programs and performance improvement/quality assurance projects.
- **Expected outcomes:** Gain a thorough understanding of the role of clinical pharmacy managers in an academic medical center; understanding the importance of coordinating multidisciplinary patient care; gaining exposure to regulatory compliance issues and quality improvement processes within the institution; developing basic supervisory skills and management training; improving leadership skills; developing communication skills (taking meeting minutes, creating workload reports for existing clinical staffing or business plans new clinical programs) and improving project management skills
- **Unique student opportunities:** Attendance at a variety of meetings as developed during a weekly calendar review; gain an understanding of do's and don'ts of committee participation and e-mail communication; observe personnel management including hiring and performance appraisals; working on projects that can be submitted for poster presentations and/or publication
- **Typical hours:** 8am-5pm (approximately); 45 hours per week

Health-System Pharmacy Oncology Management

- **Student Role:** Primarily a project-based rotation where the student will gain experience and understanding of an oncology pharmacy service line within an academic medical center. Servicing adult and pediatric patients within inpatient, ambulatory, and retail settings, the student will be exposed to cancer care across the full spectrum. The student will actively participate in daily clinical and operational decision making as well as interact closely with other disciplines. This rotation is highly involved with attending interdisciplinary and administrative meetings and working with others to gain feedback and input on various initiatives. The student will engage in multiple topic discussions with the pharmacist team, work to understand workflows (both operationally and

clinically), and identify opportunities for growth within the service line. Projects could include (but are not limited to): performance improvement/quality assurance, staff development, education, and IPPE student precepting.

- **Expected Outcomes:**
 - Gain understanding and appreciation for the role of a pharmacy oncology service manager in an academic medical center
 - Develop communication skills (i.e., documenting meeting minutes, crafting staff communications, leading daily huddles, presenting project results)
 - Improve project management skills (i.e., lead workgroups, meetings, initiatives)
 - Develop systems for improving the safety, efficiency, and quality of providing oncology care
- **Unique Student Opportunities:**
 - Attend a variety of interdisciplinary meetings across an oncology service line
 - Interact frequently with service line physicians, administrators, nursing, and advanced practice providers
 - Gain exposure to regional cancer care at UW Health affiliations and partnerships
 - Experience and understand the role of an oncology pharmacist within: inpatient (adult and pediatric), ambulatory, retail, regional, and operational settings
 - Practice alongside highly trained, engaged, and passionate oncology pharmacists
- **Typical Hours:** Monday through Friday, 8-9 hours per day; hours vary from 7am-6pm; 40-50 hours per week

Medication Safety Officer Pharmacy Management

- **Student role:** This is a primarily a project-based rotation where students gain experience and understanding pharmacy management as well as the duties of a medication safety officer at an academic medical center. The student will actively participate in the decision-making processes that support continuity of pharmacy care across the system with a focus on pharmacy practice and operations and assist in the coordination of management resources within the department to accomplish tasks. This also involves attending various interdisciplinary and administrative meetings. The student will work closely with the pharmacy management team, pharmacists and pharmacy technicians and will gain experience working with pharmacy automation and technology to optimize operational efficiency and safety of the medication distribution system. The student will also gain exposure to the role of the Medication Safety Officer and will participate in the review and follow-up of reported patient safety concerns to assist in the development of processes to prevent future medication errors. Meetings typically include: Pharmacy Management Meetings, Pharmacy Operations Meetings, Healthcare Event Evaluation Team, Medication Safety Committee, P&T Committee, and Process Improvement Committee Meetings. Projects could include medication safety initiatives and education, development of policies and procedures, staffing plans, staff development programs, and performance improvement/quality assurance projects.
- **Expected outcomes:** Gain a thorough understanding of the role of a pharmacy manager in an academic health center; understand the medication distribution process in an academic health center; develop basic supervisory skills and management training; improve leadership skills; develop communication skills (document meeting minutes, create workload reports, develop business plans for new programs/system); improve project management skills; understand the causes of medication errors; develop systems for improving the safety of the medication use process through identifying actual and potential system risks and implementing programs to prevent their recurrence.
- **Unique student opportunities:** Attendance at a variety of management meetings as developed during a weekly calendar review; observe personnel management including hiring and performance

appraisals; work closely with the Pharmacy Administration residents and the Medication Systems and Operations resident; rotation content is highly applicable to any future pharmacy career and is an evolving topic and growing area of need for trained pharmacists.

- **Typical hours:** Monday through Friday, eight hours per day; hours vary from 7am-6pm; 40-50 hours per week

Medication Use Strategy and Innovation

- The Medication Use Strategy and Innovation Program leads strategic and innovative initiatives across UW Health to maximize medication-related health and financial outcomes through safe, value-based medication use. Furthermore, the Program leads efforts to reduce medication-use variation collaboratively with physicians, advanced practice providers, pharmacists and other clinicians. Specific rotation activities include: value-based formulary system management, adverse drug events, medication safety, drug shortages, drug recalls, medication related policies, clinical practice guidelines, order sets, delegation protocols, clinical decision support, drug budgeting/forecasting, strategic planning and cost management. Students will learn how medication use decisions are made within a health-system and participate in the development, implementation, and evaluation of a wide variety of initiatives.

Pediatric Pharmacy Leadership

- **Student role:** This is a primarily a project-based rotation where students gain experience and understanding pharmacy management as well as the duties of pediatric pharmacy manager and clinical coordinator within academic medical center. The student will actively participate in the decision-making processes that support continuity of pharmacy care across the system with a focus on pharmacy practice and operations and assist in the coordination of management resources within the department to accomplish tasks. This also involves attending various interdisciplinary and administrative meetings. The student will work closely with the pharmacy management team, pharmacists and pharmacy technicians and will gain experience working with pharmacy automation and technology to optimize operational efficiency and safety of the medication distribution system. Meetings typically include: Pediatric Pharmacy Team Meetings, Pharmacy Practice Meetings, Pharmacy Management Meetings, Pharmacy Operations Meetings, Safety Event Assessment Team, Medication Safety Committee, Solutions for Patient Safety: Adverse Drug Events Committee, Pediatric Practice Council, Quality Coordinating Council etc.
- **Expected outcomes:** Gaining a thorough understanding of the role of a pharmacy leaders within a children's hospital from both a clinical and operational perspective; understanding the importance of coordinating multidisciplinary patient care; gaining exposure to regulatory compliance issues and quality improvement processes within the institution; developing basic supervisory skills and management training; improving leadership skills; developing communication skills; and improving project management skills
- **Unique student opportunities:** Attendance at a variety of meetings as developed during a weekly calendar review including; frequent interaction with pharmacy, nursing, and physician leaders; gain an understanding of do's and don'ts of committee participation and e-mail communication; observe personnel management including hiring and performance appraisals; working on projects that can be submitted for poster presentations and/or publication; presentation opportunities (team meetings, huddles, etc); participation in major change management projects
- **Typical hours:** 8am-5pm (approximately); 40-50 hours per week

Supply Chain Logistics, Analytics, and Technology Management

- **Student role:** This rotation is designed for students who are interested in pharmacy management, supply chain management, data analytics, and/or the role technology plays in patient care. Pharmacy supply chain management is the oversight of medications from the time the product is ordered to the time it is dispensed or administered to a patient. This includes oversight of procurement, contracting, financials, regulatory compliance with the Drug Supply Chain Security Act (DSCSA), and inventory management through the health system. In addition to these experiences, the students will be exposed to drug reps and will learn what they do and how to interact with them. If a student has a heavy interest in one of the above areas the rotation can be tailored to meet the student's learning goals. In general, the student will complete projects related to pharmacy supply chain, actively participate in contract evaluations and negotiations, and learn how pharmacy automation supports patient care needs. Meetings typically include: Pharmacy Management Meetings, Pharmacy Operations Meetings, P&T Committee, Drug Product Selection and Supply Committee (DPSS), Operating Room Asset Management Committee, and Ambulatory Pharmacy Leadership Committee. Additionally, the student will be exposed to interdisciplinary meetings where contracting and patient care decisions are made. Projects could include development of policies and procedures, analyzing contracts and making recommendations for changes, evaluating pharmacy automation, and developing and implementing new workflows. The student will be involved in projects that help in their growth and are meaningful to UW Health. If a student has a specific interest, the preceptor will work to find a meaningful project within their area of interest.
- **Unique student opportunities:** The number of pharmacists with supply chain and data analytics training is limited. There will be an increase need in the future for pharmacists who unstable these areas. This rotation is a great opportunity to gain expose to these areas. Additionally, attendance at a variety of management meetings as developed during a weekly calendar review; observe personnel management including hiring and performance appraisals; work closely with the Pharmacy Administration residents and the Medication Systems and Operations resident will expose the student to pharmacy management.
- **Typical hours:** Monday through Friday, eight to nine hours per day; hours vary from 7am-6pm; 40-50 hours per week
- **Expected outcomes:** Gain a thorough understanding of the role of inpatient pharmacy operations and supply chain managers in an academic medical center; understand the medication distribution process in an academic medical center and understand the role of pharmacy automation; develop basic supervisory skills and management training; improve leadership skills; develop interprofessional communication skills; improve project management skills; improve data analytic skills; develop basic negotiation skills; learn what drug reps do and how to interact with them within a health system setting.

Clinical Leadership

- **Student role:** The student is an essential part of the clinical pharmacy leadership team. The student will work on projects and actively participate in the decision-making processes that support pharmacy services with a focus on the clinical aspects of the clinic and inpatient settings. The student collaborates with inpatient and ambulatory care leaders to support or lead initiatives. This also involves attending various interdisciplinary and administrative meetings. Projects could include development or supporting the implementation of new programs, services, policies and procedures, staffing plans, staff development programs and performance improvement/quality assurance projects.

- **Expected outcomes:** Gain a thorough understanding of the role of clinical pharmacy leaders in an academic medical center; understand the importance of multidisciplinary quality improvement work; gain exposure to regulatory compliance issues and quality improvement processes within the institution; develop basic supervisory skills and management training; improve leadership skills; develop communication skills; and improve project management skills
- **Unique student opportunities:** Attendance at a variety of meetings as developed during a weekly calendar review; gain an understanding of do's and don'ts of committee participation and e-mail communication; assist with management of team meetings/huddles and other meeting opportunities as they arise; shadow in ambulatory care clinics, on inpatient units, and/or at skilled nursing facilities (based on prior experiences); improve time management skills and independence through managing multiple ongoing projects at once; gain an understanding of management responsibilities and impact at both an inpatient and ambulatory level
- **Typical hours:** Ranges from 7:00 am – 3:30 pm to 9:00 am – 5:30 pm; (about 40 hours per week on site; variable number of hours spent independently doing work)

Advanced Practice Pharmacy Clerkships: Specialty Elective 760

1 South Park Pharmacy

- **Location:** [1 South Park St.](#)
- **Patient population:** ENT, dermatology, oncology, rheumatology and other specialty clinics
- **Student role:** Extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers; nonprescription recommendations to patients; counseling; provide immunizations
- **Unique student opportunities:** Frequent drug information questions; electronic medical record (access to labs and patient charts); great relationships with clinic providers; compliance packaging; chemotherapy training
- **Typical hours:** 8:30 am-5:00pm, Monday to Friday
- **Weekend flexibility:** No

Abdominal Transplant (Transplant-1/2)

- **Patient population:** Kidney, liver, pancreas transplant patients (new, readmissions for complications, donors)
- **Student role:** Multidisciplinary rounds (attendings, fellows, residents, medical students, midlevels, RNs, nutrition, case management) and bedside rounds with attendings (approximately two to four hours per day rounding); extensive opportunities for medication regimen review in a complex patient population; recommendations on additional or alternative therapies to providers; admission and discharge medication reconciliation and consultation; first dose teaching; therapeutic drug monitoring
- **Unique student opportunities:** extensive interaction with multidisciplinary team; teach medication class for new transplant patients weekly; management of both surgical and medical patients with a broad range of medical problems; opportunity to shadow in transplant clinic; gain understanding of daily evaluation of appropriate immunosuppressant therapy; utilize a protocol to manage and dose prophylactic antiviral therapy; attend patient selection meetings; attend weekly Transplant Grand Rounds; one planned didactic discussion per week; bedside delivery of discharge medications to aid discharge counseling; opportunity to see a kidney biopsy; spend time with PGY-2 Transplant resident
- **Typical hours:** 7am-4pm, 40-45 hours per week
- **Night or weekend flexibility:** Limited nights available to accommodate student need; weekend flexibility to replace weekday time if patient care needs dictate and student interested.
- **Minimum rotation requirements:** Desire to work with complex medication regimens, interact with patients and providers and take on additional projects to improve patient care

Adult Intensive Care (Trauma and Life Support)

- **Patient population:** Diverse – mixed medical/surgical intensive care unit (liver transplant, trauma, infectious disease, pulmonary or multi-system organ failure)
- **Student role:** Teaching rounds (three to four hours) with attendings and multidisciplinary team (respiratory therapy, midlevels and nutrition); extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers; admission medication reconciliation; therapeutic drug monitoring
- **Unique student opportunities:** Daily opportunity to watch procedures (intubation, line placement, ECG, chest tube, ultrasound, endoscopy, dialysis); opportunity to see advanced organ replacement systems (CVVH); experience with drug dosing in a unique patient population; dynamic environment with a rapid pace of change; approximately 10 scheduled discussions; preceptor is part of code response team for the hospital – students can shadow any code called; spend time with PGY-2 Critical Care resident
- **Typical hours:** 7am-3:30pm, 40 – 45 hours per week
- **Night or weekend flexibility:** No

Adult Nutrition Support

- **Patient population:** Surgical and medical patients requiring IV nutrition support (intensive care patients, post-operative patients, transplant patients, small bowel obstruction, fistulas)
- **Student role:** Pharmacist-run consult service that manages all adult parenteral nutrition; extensive opportunity for on-hands learning; student will learn the basics of IV nutrition, including how to write orders for parenteral nutrition; pharmacist has order-writing privileges;
- **Unique student opportunities:** Daily opportunities to see surgery wounds and drains, intravenous lines, intravenous access devices (ports, Hickmans, PICCs) and feeding devices (G-tubes, J-tubes, naso-enteric feeding tubes); Daily opportunity to see surgical patients and learn about surgeries and post-operative complications; Daily interdisciplinary rounds with surgeon residents; opportunity to shadow feeding tube placement team or wound care team; approximately four didactic topic discussions; opportunity to spend time with pediatric nutrition support team;
- **Typical hours:** 7am-3:30pm, 40-45 hours per week; No nights;
- **Night or weekend flexibility:** Preceptor works every fourth weekend and can precept students during this time
- **Minimum rotation requirements:** Desire to practice in a hospital setting, previous hospital rotation, willingness to take responsibility for patient outcomes

Advanced Heart Failure

- **Patient population:** Heart failure patients, ventricular assist device patients and heart transplant recipients.
- **Student role:** Round daily for 2-3 hours with advanced heart failure service which consists of an attending cardiologist, a cardiology fellow, nurse practitioners, social workers, transplant coordinators, and pharmacy. Medication regimen review is conducted by students daily under the guidance of BCPS and BCCP certified clinical pharmacists. Students make recommendations on additional or alternative therapies to providers. Students interview patients on admission and counsel them on discharge and during first dose teaching.
- **Unique student opportunities:** Daily opportunities to manage warfarin per pharmacy consultation protocol; opportunity to observe a cardiac cath procedure; attend weekly MD educational cardiology conference; approximately 8 scheduled didactic discussions; attend 1-2 cardiac rehab (ambulatory) medication regimen review and patient education sessions with Karen Kopacek; attend heart transplant patient waiting list selection meeting; quizzing heart/lung transplant recipients to

ensure they understand how to take their medications; preceptor is part of code response team for the hospital – students can shadow any code called if interested. Recommend previous APPE rotation or hospital experience prior to the start of this rotation.

- **Typical hours:** 8am-4:30pm, 40-45 hours per week based on patient care needs.
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student needs.

American Family Children's Hospital Pharmacy

- **Location:** [American Family Children's Hospital Outpatient Pharmacy](#)
- **Patient population:** 25 separate pediatric specialty clinics including cardiology, diabetes/endocrine, hematology/oncology, nephrology, pulmonology, rheumatology, and transplant. Primary dispensing site for discharges from inpatient units and pediatric outpatient surgery.
- **Student role:** Daily tasks of a functioning pharmacist are performed under the direct supervision of the preceptor; pediatric dose checking; patient/parent/caregiver consultations to a captive audience that allow for high-quality interactions and opportunities for in-depth teaching when warranted; extensive opportunities to develop and fine tune compounding skills (mostly oral and topical products); comprehensive medication regimen reviews including reviewing the patient's electronic medical record (EMR), reconciling and verifying medications, diagnoses, pertinent lab values, and patient notes; interact with both clinic and hospital providers in a unique setting where pharmacists are a resource for drug related questions, including drug interactions, adverse effect management, recommendations for additional or alternative therapies including OTC recommendations; provide immunizations; conduct MTM services in affiliation with WPQC and other available programs.
- **Unique student opportunities:** Great relationship with providers in specialty clinics with frequent drug-related questions; unique and friendly retail pharmacy that promotes an environment where parents and caregivers anticipate communication with their pharmacist and pharmacy students; topic discussions with preceptor are tailored to student's interests (pediatric cancers, sickle cell anemia, cystic fibrosis, pediatric hypertension); opportunity to shadow in areas within specialty clinics, including the day treatment infusion center, pediatric sedation clinic, and the hematology/oncology clinic; work closely with hematology/oncology clinic to check doses and make recommendations/adjustments when necessary for oral chemotherapy and supportive care medications.

Typical hours: 9am-5pm, Monday to Friday

Weekend flexibility: No

Cardiovascular Medicine

- **Patient population:** Acute coronary syndrome (myocardial infarction, cardiac arrest, unstable angina), CHF, arrhythmia patients
- **Student role:** Teaching rounds with attendings, residents and medical students (approximately one to three hours per day), extensive opportunities for medication regimen review, recommendations on additional or alternative therapies to providers, admission and discharge medication reconciliation and consultation, first dose teaching, therapeutic drug monitoring
- **Unique student opportunities:** Frequent opportunities to manage warfarin; opportunity to see a cardiac cath; advanced students may be able to round with CHF team; attend weekly MD educational conference; approximately 10 scheduled didactic discussions; often able to participate in unit code response team
- **Typical hours:** 7am-3:30pm, 40-45 hours per week based on patient care needs
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student needs

Critical Care Overnights

- **Patient population:** Diverse – mixed medical / surgical intensive care unit (liver transplant, trauma, pulmonary or multi-system organ failure, neurosurgery, stroke, acute spinal cord injury), burn, acute coronary syndrome (myocardial infarction, unstable angina), CHF, arrhythmia patients, CABG, valve repairs/replacements, heart and lung transplant, left ventricular assist device patients
- **Student role:** PM rounds (approximately one hour) with fellow, residents and multidisciplinary team (respiratory therapy, midlevels, and nutrition), extensive opportunities for medication regimen review, recommendations on additional or alternative therapies to providers, admission medication reconciliation, therapeutic drug monitoring, limited opportunities for discharge medication reconciliation and consultation
- **Unique student opportunities:** Daily opportunity to watch procedures (intubation, line placement, ECG, chest tube, ultrasound, endoscopy, dialysis), opportunity to see advanced organ replacement systems (CVVH), experience with drug dosing in unique patient populations, dynamic environment with a rapid pace of change, approximately 10 scheduled discussions, preceptor is part of code response team for the hospital – students can attend, spend time with PGY-2 Critical Care resident
- **Typical hours:** 9pm-7am, 7-on/7-off schedule

Digestive Health Pharmacy

- **Location:** [Digestive Health Center](#)
- **Patient population:** The Digestive Health Center includes gastroenterology/hepatology (Crohn's disease, ulcerative colitis, hepatitis, IBS) and colorectal surgery patients. Additionally includes patients undergoing endoscopy (screening and diagnostic) procedures.
- **Student role:** Rotation includes clinical and operational experiences at the Digestive Health Center. Clinical activities include medication regimen review, recommending additional or alternative therapies to providers, answering drug information questions from providers, and reviewing clinical guideline compliance. Operational activities include medication use evaluation, management of pharmacy automation hardware/software, medication checking, and project involvement. Additional opportunities available for spending time in the infusion center with pharmacist, shadowing endoscopy procedures, and shadowing clinic providers. Regular topic discussions are held on GI disease states. Rotation includes experience with biologics and other specialty pharmacy medications.
- **Unique student opportunities:** Unique pharmacy setting (clinic specific pharmacy) and use of electronic medical record (access to labs and patient charts)
- **Typical hours:** 8am-4:30pm, eight hours per day
- **Weekend flexibility:** No

Drug Policy (Center for Medication Use Policy)

- **Student role:** The student participates as an integral member of the Drug Policy Program. In addition to shadowing pharmacists, the student will work on projects related to the development and implementation of drug policy (formulary monographs, guidelines, delegation protocols, drug information questions) and associated clinical tools (order sets, decision support tools). The student will also help with the facilitation of the Pharmacy and Therapeutics Committee meeting and various other committees (Medication Safety, Chemotherapy Council, Drug Product Selection and Supply, Anticoagulation, Antimicrobial, Smart Pump, Medication Use Evaluation).
- **Expected outcomes:** Develop an understanding of the role of applied medication use policy in the health care environment; develop and demonstrate written and verbal communication skills; develop and demonstrate fundamental project management skills; develop a systematic approach for providing drug information services; gain an understanding of the role and management of a hospital formulary
- **Unique student opportunities:** Assist as teaching assistant for drug literature evaluation course at the school of pharmacy; attendance at a variety of meetings as developed during a weekly calendar review
- **Typical hours:** Monday through Friday, 8am to 4:30pm

Emergency Department

- **Patient population:** Adults and pediatrics with approximately 65,000 visits annually. Patients cover entire spectrum of acuity and disease states including everything from finger lacerations and otitis media to cardiac arrest, acute stroke, toxicology, trauma and sepsis. A very diverse and fast paced environment. With opportunities to work directly with and learn from other health care professionals. A truly multidisciplinary environment!
- **Student role:** Direct involvement with patients, nurses, social workers, respiratory therapists, medical residents and ED attendings. Participation in ED handoff rounds and management of medication therapy for observation unit patients. Extensive opportunities for medication regimen review, medication history taking, medication reconciliation, patient assessments, participation in code responses, rapid sequence intubation, and drug information questions. Students will also participate in discharge medication review and education including follow up patients discharged on new anticoagulation. Students will have daily opportunities to review culture results for ED patients to assess appropriate therapy and recommend changes as needed. Students on this rotation should be self-motivated and willing to work hard to get the most out of the ED experience.
- **Unique student opportunities:** Hands on experience working with IV pumps and preparing medications for emergent use. Direct bedside opportunities assist with or watch procedures including intubation, chest tubes, ECG, cardiac arrest, code stroke evaluations, ect. Approximately 12 pre-planned didactic discussions in addition to interesting topics as they arise in the ED.
- **Typical hours PM Shifts:** 2:30pm-11pm, 40 hours per week
- **Night or weekend flexibility:** Nights are available to Midnight, weekends available, 10 hour shifts available.

Emergency Medicine and Pediatric Overnights

- **Patient population:** Diverse – mixed adult medical/surgical and pediatric population. These range from general care to critical care patients.
- **Student role:** Completing medication histories of patients admitted from the ED or Children’s Hospital. Interaction with medical students, ED attendings, residents, nurses and social work will involve medication related questions, medication profile reviews and disease state discussions. Extensive opportunities for medication regimen review, recommendations on additional or alternative therapies to providers, admission medication reconciliation, therapeutic drug monitoring, limited opportunities for discharge medication reconciliation and consultation
- **Unique student opportunities:** Daily opportunity to watch procedures (intubation, line placement, ECG, chest tube, ultrasound), experience with drug dosing in a unique patient population, dynamic environment with a rapid pace of change, scheduled discussions, preceptor is part of code response team for the hospital – students can shadow any code called.
- **Typical hours:** 9pm to 7am; Monday through Thursday

General Pediatrics

- **Patient population:** Diverse – neonates, infants, children and adolescents admitted for a variety of conditions (appendicitis, asthma, bronchiolitis, community-acquired pneumonia, inflammatory bowel disease, neonatal fever, osteomyelitis, , trauma)
- **Student role:** Attend team rounds with medical residents, students and attendings (2-4 hours per day); admission and discharge medication reconciliation and consultation; first dose teaching; therapeutic drug monitoring; extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers.
- **Unique student opportunities:** Approximately three topic scheduled didactic discussions per week set up at the beginning of the rotation; weekly attendance at Pediatric Grand Rounds if applicable to pharmacy practice; students complete one journal club or one case presentation as well as a rotation project presentation to the pharmacy team; recommended for students interested in pursuing a future in pediatrics.
- **Typical hours:** 7:30am-4pm, 40-45 hours per week.
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student needs.
- **Recommended for students interested in pursuing a future in pediatric pharmacy.**

Hematology/Oncology/Bone Marrow Transplant

- **Patient population:** Blood cancer (leukemia, lymphoma, etc.) patients, allogeneic and autologous bone marrow transplant (BMT) recipients, and solid tumor (breast, colorectal, etc.) patients. Students spend time working with each patient population during their rotation.
- **Student role:** During hematology - rounding with attending, fellow, nurse practitioners, residents, interns, medical students, and nurses then participating in interdisciplinary rounds with physicians, nurse practitioners, case management, and nutrition (total of approximately three hours rounding per day); during bone marrow transplant - rounding with attendings, nurse practitioners, nurses, and often a fellow (total of approximately four hours rounding per day); during oncology - rounding with attendings, nurse practitioners, and nurses then participating in interdisciplinary rounds with physicians, nurse practitioners, case management, and nutrition (total of approximately two to three hours rounding per day); extensive opportunities for conducting medication regimen review, making recommendations on additional or alternative therapies to providers, performing admission and discharge medication reconciliation and consultation, completing first dose teaching, observing

chemotherapy regimen checks, performing therapeutic drug monitoring, and having topic discussions on subjects such as neutropenic fever, oncologic emergencies, chemotherapy-induced nausea/vomiting, and cancer pain.

- **Unique student opportunities:** Students will complete a journal club, attend weekly hematology conference while working with the hematology team, attend weekly BMT conference while working with the BMT team, and spend time with PGY-1 pharmacy practice residents and PGY-2 oncology residents; student projects often involve guideline development or revision; additional opportunities include: spending time with the palliative care service, working with the oncology pharmacy coordinator, observing procedures (lumbar punctures, stem cell infusions, bone marrow biopsies), shadowing pharmacists in oncology clinic, and attending a Chemotherapy Council meeting, an Oncology Pharmacy Service Line meeting, a chemotherapy protocol review, and Oncology Grand Rounds.
- **Typical hours:** Either 7am-3:30pm or 8am-4:30pm based on rotation, 40-45 hours per week
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student needs

Hospice

- **Patient population:** Patients with a prognosis of six months or less with a mixture of terminal diagnoses (cancer, dementia, COPD, CHF)
- **Student role:** Rounding with multidisciplinary team (MDs, social worker, RNs and grief counselor) daily, then seeing targeted patients with attending (one hour per day); extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers; medication reconciliation on transfer to hospice; frequent drug information questions
- **Unique student opportunities:** Mix of inpatient and outpatient care; opportunity to see patients in their homes with a nurse or physician; approximately 15 scheduled didactic discussions; opportunity to attend a mixture of administrative and clinical meetings with preceptor; assist with nursing orientation/teaching; excellent low-cost local food from an on-site chef
- **Typical hours:** 8:30 AM to 5:00 PM, 40-45 hours per week
- **Night or weekend flexibility:** No

Infectious Disease

- **Patient population:** Diverse (any inpatient treated for a multitude of infectious diseases and infectious disease complications)
- **Student role:** Round with ID consult team daily (three to four hours per day); team includes ID attending, fellow, residents and medical students; responsibilities include monitoring (adjusting for organ dysfunction), lab and culture follow-up, detecting Rx interactions; participate in HIV-ID clinic; present approximately one to two patient cases to preceptor daily with follow-up didactic discussion of the underlying pathology of the specific infectious disease process; present a minimum of one journal club dealing with a therapeutic controversy; perform therapeutic drug monitoring and pharmacokinetic calculations including but not limited to aminoglycosides and vancomycin; work closely with the antimicrobial monitoring efforts and perform a review of antimicrobial use as it pertains to institutional guidelines
- **Unique student opportunities:** Plate rounds weekly; weekly ID conference (one-hour patient case presentation and one-hour discussion) with ID fellows and faculty; pharmacokinetic calculations and monitoring
- **Typical hours:** Generally, 7am-4:30pm, 45-50 hrs per week
- **Night or weekend flexibility:** Limited, but some rounding may go until late evening

Inpatient Psychiatry (Psych)

- **Patient population:** Voluntary and involuntary admissions for psychiatric conditions (depression, suicidal ideation or attempt, bipolar disorder, schizophrenia); electroconvulsive therapy patients
- **Student role:** Multidisciplinary rounds (one to four hours per day) where patient is present with physicians, psychologist, RNs, social work, occupational therapy; extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers; admission and discharge medication reconciliation and consultation; first dose teaching; therapeutic drug monitoring
- **Unique student opportunities:** Teach weekly medication class; opportunity to observe electroconvulsive therapy treatment; approximately eight scheduled didactic discussions; monitoring clozapine and managing clozapine registry; gain understanding of consent for inpatient psychiatry patients
- **Typical hours:** 7am-3:30pm, 40-45 hours/week
- **Night or weekend flexibility:** Limited nights and weekends available

Internal Medicine

- **Patient population:** Diverse – multiple complex acute and chronic disease states across a wide spectrum of age (adolescents to elderly); disease states include end-stage liver disease, infectious disease, asthma/COPD exacerbations, pain, cystic fibrosis, AKI/CKD/ESRD/HD and GI (Crohn's, ulcerative colitis). Additional subspecialty opportunities to work with HIV and advanced pulmonary diseases.
- **Student role:** For 2-3 weeks students will attend inpatient work rounds with medical residents, students and attendings (approximately five hours per day). They will have extensive opportunities for medication regimen review, recommendations on additional or alternative therapies to providers, admission and discharge medication reconciliation and consultation, first dose teaching, therapeutic drug monitoring. Students will spend one day per week in HIV clinic and perform a daily review antibiotic principles: dosing, monitoring, pharmacokinetics, pharmacodynamic for patients. Optional additional experiences will include rounding with inpatient advanced pulmonary patients or the acute nephrology consult team. Advanced pulmonary option will include patients with lung transplants, cystic fibrosis, and end-stage lung disease. Students will attend the Pulmonary Hypertension Care team meetings and the Cystic Fibrosis Care team meetings. For acute nephrology, students will attend 2-3 weeks of daily rounding with consult service (covering AKI, CHF, hemodialysis, fluid overload, etc).
- **Unique student opportunities:** Increase knowledge in HIV and see patients in HIV clinic; apply principles of PK/PD to monitoring IV antibiotics for patients on internal medicine units; review antimicrobial therapy, dosing, monitoring and guidelines for treatment of infections seen in Internal Medicine patients at UWHC: pneumonia, endocarditis, cellulitis, abdominal infections, osteomyelitis, invasive fungal infections, opportunistic infections, and HIV. Review treatment of chronic diseases and acute illness seen in internal medicine (diabetes, hypertension, heart failure, depression, kidney disease, liver disease, etc.).
- **Typical hours:** 7am-4pm, 45–50 hours per week
- **Night or weekend flexibility:** No

Medication Systems and Operations

- **Location:** University Hospital (700 Highland Ave, Madison) and Pharmacy Services Building (3185 Deming Way, Middleton)
- **Patient population:** Students will be exposed to advanced and innovative medication systems in clinical, operational and technology settings across the health system.
- **Student role:**
 - Learn the pharmacy operations and medication use systems at a large health system
 - Learn how to improve the operational efficiencies to better serve patient and health professional needs through the application of informatics and technology
 - Complete operational projects
 - Attend meetings with Pharmacy Operation leaders
- **Unique student opportunities:**
 - Project Management: The student will learn the fundamentals of hands-on project management and apply these skills as he or she completes projects
 - Technology: UW Health has implemented and utilizes a wide range of automation and technology in all phases of the medication-use process. Examples of such technology/automation include: IV workflow, automated dispensing cabinets, robotics, bedside barcode medication administration, carousels, perpetual inventory, high-speed packagers, and fluidose
 - Clinical Involvement: This rotation provides the student with exposure to the unique aspect of connecting clinical needs in practice with the operational background of how to dispense and administer medications in those areas
- **Typical hours:** Monday through Friday, 8 hour days with some flexibility

Neonatal Intensive Care Unit (NICU)

- **Patient population:** Neonates (preterm and term) admitted for a variety of conditions, many requiring surgical intervention, nutrition support, advanced imaging, and life support
- **Student role:** Attend team rounds with advanced level NPs and attendings/fellows (two to five hours per day); extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers; admission and discharge medication reconciliation and consultation; first dose teaching; therapeutic drug monitoring
- **Unique student opportunities:** Approximately three topic scheduled didactic discussions per week set up at the beginning of the rotation; weekly attendance at Pediatric Grand Rounds if applicable to pharmacy practice; students complete one journal club or one case presentation as well as a rotation project presentation to the pharmacy team.
- **Typical hours:** 7am-3:30pm, 40-45 hours per week
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student need
- **Recommended for students interested in pursuing a future in pediatric pharmacy! Enrollment in the pediatrics elective course through SOP is strongly recommended.**

Neurosciences ICU (Neurosurgery/Neurology Intensive Care Unit)

- **Patient population:** Intracranial bleeds (traumatic, aneurysmal, medication-related), traumatic brain injury (intracerebral pressure management), paroxysmal sympathetic hyperactivity, status epilepticus, stroke (ischemic, hemorrhagic), central nervous system infection (meningitis, hardware infection)
- **Student role:** Reviewing patient medical profiles, discussing/presenting patients to pharmacist preceptor, therapeutic monitoring responsibilities, observing pertinent medical procedures occurring in ICU, obtaining admission histories, medication discharge consultations
- **Unique student opportunities:** Opportunity to watch procedures (ventriculostomy placement, intubation, participate in ACLS events), scheduled didactic discussions with clinical pharmacists as content experts, working with neurosurgeons and neurocritical care physicians
- **Typical hours:** 8am-3:30pm Monday-Friday.
- **Night or weekend flexibility:** No

Nuclear Pharmacy

- **Site description:** Radiopharmacy settings providing compounded radiopharmaceuticals for use in diagnostic and therapeutic applications and in support of UW Hospital, UW School of Medicine, Carbone Cancer Center and research projects, as well as out-of-hospital nuclear programs; an average of 50-70 doses/day are compounded. One pharmacy concentrates on SPECT radiopharmaceuticals in a hospital setting, while the other pharmacy is located in a cGMP manufacturing environment (in compliance with cGMP Part <212>) in WIMR building.
- **Student role:** Combines project-based activities and active participation in pharmacy operations including radiopharmaceutical quality control, compounding and dose dispensing, and receiving material. Projects typically include coordinating nuclear medicine research protocols, regulatory research, Standard Operating Procedure organization or other clinically related projects; meeting attendance with the nuclear pharmacy coordinator provides exposure to current issues surrounding the use of radiopharmaceuticals, radiation safety and drug development. Meetings include Campus Radiation Safety Meetings,, UW Radiopharmaceutical Production Taskforce, UW Radioactive Drug Research Committee, Human Radiation Use Committee, and other ad hoc task forces as they arise.
- **Unique student opportunities:** Observe the application of diagnostic and therapeutic radiopharmaceuticals in patient care; participate in weekly journal clubs with nuclear medicine physician residents (yes, you will present); optional visits to other Nuclear Pharmacy practice areas, attend weekly nuclear medicine/radiology lectures with nuclear medicine physician residents; gain competence in the basic mathematics of nuclear pharmacy including radioactive decay calculations, concentration and dose/volume calculations, and pediatric dose adjustment calculations; gain an understanding of radiation and its biological effects.
- **Typical hours:** 6:30am-3:30pm, 40-45 hours per week
- **Night or weekend flexibility:** None
- **Minimum requirements:** Must have completed Medical Imaging for Pharmacists 611 and Radiopharmaceuticals 612

Oncology Clinic

- **Location:** UW Carbone Cancer Center (Primary). Students may also have exposure to community practice at 1SP Cancer Center (~1 mile away from University Hospital).
- **Patient population:** Students interact with patients being seen at the Carbone Cancer Center. Students will be exposed to lung, head and neck, breast, gynecologic, gastrointestinal, genitourinary, skin, hematologic cancers and bone marrow transplant
- **Student role:** Students have multiple responsibilities within the oncology clinic. For one, students are responsible for seeing patients in the infusion center and ensuring appropriate supportive care medications are available and refilled prior to the patient discharging. On average, students will manage at least 30 infusion center patients daily. While on rotation, students will interact with oncology clinic pharmacists, residents, nursing and providers. Students will work with clinic pharmacists to appropriately manage and follow-up on patient treatment regimens - including oral oncolytics, supportive care therapies, immunization screening and administration, and service the daily needs of oncology clinics. Additionally, students will participate in disease-state presentations, grand rounds and topic discussions.
- **Unique student opportunities:** As mentioned above, students are responsible for seeing patients in the infusion area to ensure appropriate supportive care therapies are available to the patient at discharge. Students also interact closely with clinic providers; clinical trials; gain exposure to hospice care patients; and build great relationships with faculty, residents and nursing staff
- **Typical hours:** 8am-4:30pm, Monday to Friday
- **Weekend flexibility:** No

Oncology Retail

- **Location:** UW Carbone Cancer Center
- **Patient population:** Students interact with patients being seen at the Carbone Cancer Center. Students will be exposed to lung, head and neck, breast, gynecologic, gastrointestinal, genitourinary, skin, hematologic cancers and bone marrow transplant
- **Student role:** During this experience, students will be responsible for ensuring patients understand both supportive care and oral oncolytic therapies being prescribed. Through phone consults and in-person counseling, students will serve as an extension to the retail and clinic pharmacists. Students will also gain exposure to managing patients who have undergone a bone marrow transplant and are in need of post-transplant immunizations. If certified, students can provide these immunizations. Being certified to provide immunizations is not a requirement for this rotation. Other experiences students will have while on rotation include: gaining familiarity with oncology grant fund programs, Celgene REMS management, specialty pharmacy medication distribution, and the UW drug repository program. Overall, students are heavily immersed in oncology patient care and will interact regularly with other oncology clinic pharmacists, providers, residents and nursing staff.
- **Unique student opportunities:** Exposure to specialty medication management, drug repository program, grant access, REMS management, and post-BMT immunizations. This rotation is especially unique as 95% of population served are oncology patients. Students are expected to participate in disease-state presentations, topic discussions, and grand rounds.
- **Typical hours:** 0830 -1700 Monday through Friday
- **Weekend flexibility:** No

Operating Room/Central Pharmacy

- **Patient population:** All inpatients that receive medications within University Hospital, as well as patients undergoing surgical procedures in the Main Adult Inpatient OR, Outpatient Surgical Center, Ambulatory Procedure Center, GI Procedure Center, UW adult and pediatric cath labs, Pediatric Sedation and American Family Children's Hospital OR.
- **Student role:** Work with OR pharmacists and participate in interdisciplinary perioperative decisions; optimize pre-op antibiotic regimens following the SCIP (Surgical Care Improvement Project) guidelines; assist in the verification of sterile and non-sterile products; gain and apply understanding of USP <797> standards; enable timely and accurate medication distribution
- **Unique student opportunities:** Multifaceted learning experience including the basics of inpatient drug distribution along with of the two major aspects of the operating room – clinical pharmacy and management of medication distribution within OR operations; attend weekly anesthesia Grand Rounds, and monthly Anesthesia Clinical Practice Committee; participate in the anesthesia-controlled substance diversion avoidance program; shadow technicians in all OR areas; observe at least one procedure to understand the workflow of the anesthesia staff in relation to the surgical team and pharmacy team; assist with OR pharmacist projects; participation in ongoing improvement projects and medication safety initiatives; shadow in the Pharmaceutical Research center and infusion center
- **Typical hours:** 40 hours per week; flexible, 7am-3:30pm
- **Night or weekend flexibility:** Nights and weekends are available to accommodate student needs

Pediatric Complex Care

- **Patient population:** Diverse – neonates, infants, children and adolescents admitted for a variety of conditions (transplant, diabetes, neurology/pediatric seizure disorders, ketogenic therapy, spinal muscular atrophy, pediatric pulmonary disorders, cystic fibrosis, palliative care).
- **Student role:** Attend team rounds with medical residents, students and attendings (2-4 hours per day); admission and discharge medication reconciliation and consultation; first dose teaching; therapeutic drug monitoring; extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers.
- **Unique student opportunities:** Approximately three topic scheduled didactic discussions per week set up at the beginning of the rotation; weekly attendance at Pediatric Grand Rounds if applicable to pharmacy practice; students complete one journal club or one case presentation as well as a rotation project presentation to the pharmacy team; recommended for students interested in pursuing a future in pediatrics.
- **Typical hours:** 8am-4:30pm, 40-45 hours per week.
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student needs.
- **Recommended for students interested in pursuing a future in pediatric pharmacy.**

Pediatric Intensive Care Unit (PICU)

- **Patient population:** Diverse – neonates, infants, children, and adolescents admitted for a variety of conditions (DKA, congenital heart defects post-surgical correction, ECMO, shock/sepsis, status asthmaticus, status epilepticus, and trauma)
- **Student role:** Attend team rounds with medical residents, students and attendings/fellows (two to five hours per day); extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers; admission and discharge medication reconciliation and consultation; first dose teaching; therapeutic drug monitoring
- **Unique student opportunities:** Approximately three topic scheduled didactic discussions per week set up at the beginning of the rotation; weekly attendance at Pediatric Grand Rounds if applicable to pharmacy practice; students complete one journal club or one case presentation as well as a rotation project presentation to the pharmacy team.
- **Typical hours:** 7am-3:30pm, 40-45 hours per week
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student needs
- **Recommended for students interested in pursuing a future in pediatric pharmacy! Enrollment in the pediatrics elective course through SOP is strongly recommended.**

Pediatric Nutritional Support

- **Patient population:** Diverse mixture of pediatric medical and surgery patients requiring short- or long-term intravenous (IV) nutrition support (neonates, hematology-oncology, tracheoesophageal fistula, cardiac surgery, short bowel syndrome, ileus, small bowel obstruction, trauma)
- **Student role:** Pharmacist-run, multidisciplinary consult service that manages all parental nutrition prescribed at the American Family Childrens Hospital at UW Hospital and Clinics; rotation has a medical model of instruction with an "attending" pharmacist; student receives training and is expected to see, evaluate and make therapeutic plans on their patients independently and present them to the attending pharmacist; student will care for one to six patients on a daily basis (depending on the student's level of comfort and complexity of the patients), managing macronutrients, micronutrients, insulin, and fluids/electrolytes after review by pharmacist; protocol allows attending pharmacist to order nutrition support, fluids, electrolytes, laboratory tests, radiographic tests and indirect calorimetry; student completes all necessary chart documentation and care planning for their patients in consultation with the Pediatric Nutrition Support Team and the patient's primary team (and other consultants, if applicable)
- **Unique student opportunities:** Daily interdisciplinary rounds with pediatric surgeon or pediatric gastroenterologist (as available), dietitians, and pharmacists on nutrition support team; daily interdisciplinary rounds with Critical Care, Hematology-Oncology, Neonatal and/or Pediatric General Care teams; opportunity to go to Grand Rounds; opportunity to observe PICC placement, feeding tube placement, or wound care team; didactic topic discussions (at least twice weekly); opportunity to attend monthly nutrition committee meeting; opportunity to shadow in sterile products area; opportunity to spend time with Surgical Nutrition Support Team
- **Typical hours:** 7 or 8am-3:30 or 4pm, 40 to 45 hours per week
- **Night or weekend flexibility:** No nights, possible weekends if desired
- **Minimum rotation requirements:** Desire to practice in a hospital setting, willingness to take responsibility for patient outcomes

Pediatric Oncology

- **Patient population:** Diverse – infants, children, and adolescents admitted for treatment of a variety of pediatric malignancies and associated supportive care; students will also see patients during and after bone marrow transplant and with non-malignant hematologic conditions as well as some exposure to neurology/neurosurgery, ENT and plastic surgery patients.
- **Student role:** Attend team rounds with medical residents, students and attendings/fellows (two to four hours per day); extensive opportunities for medication regimen review; recommendations on additional or alternative therapies to providers; admission and discharge medication reconciliation and consultation; first dose teaching; therapeutic drug monitoring and many questions to answer
- **Unique student opportunities:** Approximately three scheduled pediatrics topic discussions per week set up at the beginning of the rotation; weekly attendance at Pediatric Oncology Tumor board meeting; students complete one journal club or one case presentation as well as a rotation project presentation to the pharmacy team or to the oncology service line; Optional 1-day shadow opportunity in pediatric oncology clinic.
- **Typical hours:** 8:30am-5:00pm
- **Night or weekend flexibility:** Limited nights and weekends available to accommodate student needs
- **Recommended for students interested in pursuing a future in pediatric pharmacy! Enrollment in the pediatrics elective course through SOP is strongly recommended.**

Pharmaceutical Research Center

- **Student role:** This is primarily a project-based rotation where students gain experience with, and an understanding of, a Pharmacy-based Investigational Drug Service. Students will attend a variety of meetings with the Manager and pharmacists of the PRC as well as participate in discussions of research related topics including ethics in human research, study design, randomization and blinding as well as the UW Research Infrastructure. The PRC is responsible for the safe and ethical provision of investigational study medications to research subjects enrolled in all clinical drug trials within our hospitals and clinics.
- **Expected outcomes:** The student will obtain a thorough working knowledge of the concepts and processes behind the operations and management of an investigational drug service.
- **Unique student opportunities:** The role of the PRC pharmacist is to evaluate a research protocol and translate it operationally into the structure of UW Health. Students will witness workflow development and protocol structuring within the UW Health enterprise. This is an opportunity to participate in an area of pharmacy practice not open to many students; significant number of one-on-one discussions with preceptor and staff, exposure to system level meetings including IRB, CRU and meetings with our pharmaceutical industry colleagues.
- **Typical hours/night or weekend flexibility:** Monday through Friday, eight hours per day, business hours

Pharmacy Informatics

- **Location:** Excelsior Office Building – 8501 Excelsior Drive, Madison
- **Patient population:** Students will be exposed to medication management using an electronic medical record (EMR) across a diverse clinical population.
- **Student role:**
 - Become familiar with information systems and informatics principles
 - Attend meetings with UW Hospital and Clinics Information Technology Services and Pharmacy Department
 - Participate in a medication safety or informatics related initiative with a multidisciplinary team as the opportunities arise
 - Understanding the principles of maintaining a pharmacy system safely
 - Oversight and review of the benefits for technology used to improve the safety of the medication use process
- **Unique student opportunities:** Exposure to the field of pharmacy and health care informatics, and the potential career opportunities available in the rapidly changing and expanding field of pharmacy practice. Establish a knowledge base of computerized provider order entry (CPOE) and other areas of integrated health care technology. Gain an understanding of how legal, regulatory, and professional standards are integrated into an EMR.
- **Typical hours/night or weekend flexibility:** 8am-5pm, Monday-Friday (no weekends or holidays) with some flexibility
- **Minimum rotation requirements:** Completion of a 740 rotation at UW Health

Specialty Surgery (Gynecology/Oncology)

- **Patient population:** Breast cancer, ovarian cancer, uterine cancer, head and neck cancer, prostate cancer, bladder cancer; any patients presenting with an acute or chronic symptomatology/pathology requiring procedures to meet the specialties of gynecology/oncology, otolaryngology, urology, and plastic surgery
- **Student role:** Participate in daily rounds with gynecology (oncology) team; complete a daily review of assigned patients (problem list, pharmacotherapy, procedures, labs, vitals, enteral/parenteral access); monitor medications daily for indication, dosing, efficacy, safety/adverse effects, potential drug interactions, drug administration/compliance issues, procurement/cost considerations; communicate therapeutic recommendations to the prescriber; demonstrate ability to complete thorough admission medication histories; admission and discharge medication reconciliation; discharge patient counseling for specialty surgery patients; coordinate efforts with social workers, discharge planners, home care agencies, pharmacies, clinics to ensure successful outpatient drug therapy and continuity of care; provide first dose counseling
- **Unique student opportunities:** Interact with the interdisciplinary team (including physicians, nurses, therapists, social worker and nurse case manager) several times per day; shadow experiences are available by request: pain team, diabetes management, surgical nutrition (TPN team) and discharge medication specialist
- **Typical hours/night or weekend flexibility:** 7am-3:30pm, with opportunities to pick up hours in the evening and/or weekends. Minimum of 40 hours per week is expected.
- **Minimum rotation requirements:** Pharmacotherapy pearl presented to clinical rounding service; project presentation at pharmacist team meeting.

The American Center: Orthopedics/Hospital Medicine/Bariatric Surgery/Emergency Dept.

- **Patient population:** Diverse - medicine, orthopedic surgery and bariatric surgery patients
- **Student role:** This rotation provides students the opportunity to apply skills learned in school to perform medication reconciliation, vaccine screening, discharge counseling, therapeutic drug monitoring, medication histories and participation in interdisciplinary rounds. Student will also have the opportunity to watch procedures, attend codes, answer drug information questions and provide a nursing or pharmacy in-service.
- **Unique student opportunities:** very diverse patient population, opportunity to attend daily rounds, frequent opportunities to manage warfarin, opportunities to dose antibiotics, free parking and on the bus line
- **Typical hours:** Monday- Friday 7am-3:30 pm, 40-45 hours per week
- **Night or weekend flexibility:** yes, but rounds occur Monday-Friday at 9:15 am

Trauma Surgery

- **Patient population:** General care and intermediate care (IMC) of trauma and orthopedic patients with the following possible complications or conditions from trauma: long bone and pelvis fractures, rib fractures, post-concussive nausea and vomiting; pain control management (with opioids, epidurals, NSAIDs, acetaminophen, and ketamine); delirium; ethanol and/or other substance withdrawal; trauma induced seizures; trauma induced bowel or abdominal injuries; trauma induced hypercoagulable states
- **Student role:** Actively participate in attending/teaching rounds; complete a daily review of assigned patients (problem list, pharmacotherapy, procedures, labs, vitals, enteral/parenteral access); monitor medications daily for indication, dosing, efficacy, safety/adverse effects, potential drug interactions, drug administration/compliance issues, procurement/cost considerations; communicate therapeutic recommendations to the prescriber; demonstrate ability to complete thorough admission medication histories; admission and discharge medication reconciliation; discharge patient counseling for trauma and orthopedic patients; coordinate efforts with social workers, discharge planners, home care agencies, pharmacies and clinics to ensure successful outpatient drug therapy and continuity of care; and provide first dose counseling
- **Unique student opportunities:** Care of IMC (step down from ICU) patients; interaction with the interdisciplinary team (including physicians, nurses, therapists, social worker, and nurse case manager) several times per day; daily rounds with the pharmacist; topic discussions pertaining to patient case load; weekly trauma case conference; by request and availability: journal club with the interdisciplinary team; by request: Diabetes Management Service, Surgical Nutrition (TPN team), Health Psychology, and Discharge Medication Specialist
- **Typical hours/night or weekend flexibility:** 7am-4pm (approximately 40-45 hours per week based on patient care needs), with opportunities to pick up hours in the evening and/or weekends
- **Minimum rotation requirements:** Assigned curriculum pertaining to trauma patients and as assigned by the School of Pharmacy or preceptor

University Hospital (UW Hospital) Infusion Center

- **Location:** University Hospital 3rd floor
- **Patient population:** Diverse - The infusion center provides care to patients from a number of specialty clinics including gastroenterology, rheumatology, neurology, allergy/immunology, infectious disease and others.
- **Student role:** Perform clinical review of all new and renewal medication orders, communicate with specialty clinic RNs and physicians regarding any recommended dosing, interval, pre-med or regimen changes, confirm appropriate monitoring of therapies, communicate with prior-authorization team regarding insurance coverage, provide infusion center RN education, and provide first-dose teaching for infusion center patients. Potential for project or process improvement work if desired as well.
- **Unique student opportunities:** This is the place to master your non-oncology related – mabs! Students will be exposed to a multitude of specialty medications administered in the infusion center and at UW clinic locations. There is ability to focus the rotation to the student’s individual interests. Also, may be able to shadow the provider in 1-2 specialty clinics over the course of the rotation.
- **Typical hours:** 8am–4:30pm with flexibility to schedule between 7:30am–5:30pm. 40-45 hours per week.
- **Weekend flexibility:** No weekends

UW Health Specialty Pharmacy (Administration)

- **Location:** Pharmacy Services Building
- **Patient population:** Specialty (transplant, RA, GI, Derm, Neurology, Pulmonology, etc)
- **Student role:** The student will play a role in the review of specialty pharmacy payment structure and working with pharmacists on the development of educational materials and counseling of specialty patients. Students will have opportunities to participate in WPQC interventions, vaccinations, contract review, documentation and billing for pharmaceutical care, and gain a comprehensive understanding of pharmacy reimbursement/drug procurement procedures.
- **Unique student opportunities:** Electronic medical record (access to labs and patient charts); frequent drug information questions; frequent interactions with doctors, nurses and residents; contract and payment reviews; meetings with pharmaceutical manufacturers and handling of limited distribution pharmaceuticals; exposure to Epic-based patient case management and patient reporting.
- **Typical hours:** 8am-4:30pm, Monday to Friday
- **Weekend flexibility:** Yes

UW Health Specialty Pharmacy Mail Service

- **Location:** Pharmacy Services Building
- **Patient population:** Multiple sclerosis, cystic fibrosis, transplant medicine, Crohn's disease, Ulcerative Colitis, HIV, hepatitis C, psoriasis, pediatric complex care, rheumatoid arthritis.
- **Student role:** Extensive opportunities for medication regimen review; new and continuing therapy patient consultation with a focus on long-term adherence and troubleshooting adverse effects; coordinating follow-up with primary physicians and caregivers; provide immunization recommendations; chart patient interactions in patient's electronic medical records
- **Unique student opportunities:** Combined medication management mail service pharmacy and clinic pharmacy; exposure to specialty pharmaceuticals; extensive collaboration with transplant coordinators and clinic providers; electronic medical record (access to labs and patient charts); use of pharmacy innovation (ParataMax dispensing system and shipping services); free parking
- **Typical hours:** Student hours are flexible; site is open from 8am-6pm, Monday to Friday
- **Weekend flexibility:** No