Core Rotations/Experiences (Required)

Direct Patient Care

Cardiology
- 5-week rotation
- Cardiology is generally completed in the second half of the residency year. This rotation is centered on the Cardiovascular Unit (CVU), which is a 29-bed unit with an average length of stay for patients of approximately 36 hours. The CVU staff is primarily responsible for the care and monitoring of cardiac and stroke patients admitted to the hospital. Pharmacy services on CVU are provided by one decentralized pharmacist from 0700 – 1730. Residents work one-on-one with cardiology providers in the inpatient and outpatient settings, have opportunities for observing various cardiac-related procedures (e.g., catheterization, cardioversion), gain exposure to patient education, and much more.

Critical Care
- 5-week rotation
- Critical Care focuses on enhancing the residents’ abilities to provide compassionate, comprehensive, patient-centered, pharmaceutical care to critically ill patients. This rotation is based in the Intensive Care Unit (ICU), a 24-bed combined medical/surgical intensive care unit. Pharmacy services in ICU are provided by one decentralized pharmacist from 0700 – 1730. Residents will actively contribute to interdisciplinary ICU rounds, which include intensivist physicians, nurses, dieticians, respiratory therapists, social workers, pharmacy, and others ancillary professionals. Residents also have one-on-one time with providers, dieticians, respiratory therapists, and much more.

Infectious Diseases
- 5-week rotation
- Infectious Diseases (ID) is another one of the first direct patient care rotations in the residency year. The rotation primarily consists of inpatient rounding with the ID physician(s) and ID pharmacist, including exposure to the developing antimicrobial stewardship (AMS) program. Residents also have brief exposure to the Ryan White HIV Clinic at RiverStone Health where HIV-positive patients are seen by providers on Wednesdays and Thursdays. Additionally, residents may spend time in Microbiology Laboratory and attend the Infection Control Committee and other relevant interdisciplinary meetings. Finally, residents help advance the AMS program.

Internal Medicine
- 5-week rotation
- Internal Medicine primarily consists of interdisciplinary rounding with the Billings Clinic Internal Medicine Residency Program physicians. It is one of the first rotations within the residency year. Residents focus their attention on the inpatient medical-surgical (IPMS) areas but will also gain exposure to patients in all areas of the hospital, excluding obstetrics and neonatal intensive care. IPMS services cover three floors and provide pharmacotherapy services for approximately 100 patients.
Medical Emergencies
- 12-month, longitudinal learning experience
- The Medical Emergencies longitudinal learning experience is a continuation and augmentation of concepts introduced in advanced cardiovascular life support (ACLS) orientation, in ACLS classes, and through learned experiences from attending cardiopulmonary resuscitation (CPR) events. Residents will become ACLS certified and potentially pediatric advanced cardiovascular life support (PALS) certified, depending on their interests. Residents are expected to participate in emergency situations in all areas of the hospital during their residency year, primarily via responding to all CPR notifications. Residents are also responsible for staff education regarding CPR-related issues and complete several pharmacy-focused CPR skills labs per year.

Practice Management
Orientation
- 8-week rotation, runs concurrently with the Drug Information – Concentrated and Pharmacy Practice rotations
- Orientation is one of the first learning experiences for all PGY1 pharmacy residents, which is started simultaneously with the Pharmacy Practice rotation. It consists of weekly meetings between the Residency Program Director (RPD) and residents. The focus of orientation is to educate residents regarding policies, procedures, and programs affecting their positions, determine each resident’s individual professional experiences to-date and goals for the future, discuss the RLS and ResiTrak™, and familiarize the residents with the organization and pharmacy department. During orientation, residents complete required training and competency assessments, develop understanding of the RLS and ResiTrak™, and formulate ideas for their residency research projects.

Drug Information
- 8-week rotation, runs concurrently with the Orientation and Pharmacy Practice rotations
- 10-month longitudinal learning experience (September – June)
- Drug Information (DI) has two components: an 8-week concentrated rotation followed by a longitudinal component through the remainder of the residency year. The DI concentrated rotation includes weekly meetings between the preceptor, RPD, and residents. Residents present topic discussions on proper literature evaluation techniques and biostatistics, learn to formulate proper responses to requests for medication information, and deliver effective journal club presentations. The DI longitudinal learning experience is a continuation and augmentation of concepts introduced in the DI concentrated rotation. Residents improve their abilities to perform comprehensive searches for medication-related topics using a variety of databases and indexing services. They provide timely and accurate drug information responses to a variety of requestors, deliver journal club presentations, and strive to master their literature evaluation techniques and understanding of biostatistics in an effort to prepare to successfully pass the Board of Pharmaceutical Specialties’ Pharmacotherapy examination post-residency.
Medical Informatics
- 12-month, longitudinal learning experience
- Medical Informatics provides residents exposure to a wide range of informatics-related topics as well as different software systems and technology. Pharmacy informatics services are provided by a team of two full-time pharmacists and two systems analysts. Residents complete at least one medication use evaluation (MUE), using logical, well-planned outcomes and study designs. Additionally, residents meet with their preceptor periodically for topic discussions. Residents are also integrated into informatics and technology-based projects (e.g., order set development/review, rule building) as opportunities arise.

Pharmacy Academia
- 12-month, longitudinal learning experience
- Pharmacy Academia is a multi-faceted experience aimed to prepare residents to effectively educate others. Residents are responsible for presenting lectures at Pharmacy Grand Rounds (twice). Similarly, each resident presents once at Nursing Grand Rounds and Physician Grand Rounds and is a guest lecturer for the Rocky Mountain College Master of Physician Assistant Studies program. Additionally, residents have opportunities to develop their precepting skills via interactions with the multitude of IPPE and APPE pharmacy students from several universities. Residents serve as resources for the pharmacy students and provide guidance, if needed, with presentations, projects, drug information responses, journal club sessions, medication use evaluations, and much more. Residents also have the opportunity to obtain a teaching certificate as part of the University of Montana Residency Teaching Certificate Program.

Pharmacy Administration
- 9-month longitudinal learning experience (October – June)
- Pharmacy Administration focuses on developing residents as leaders. Residents work closely with the preceptor and other members of the pharmacy leadership team to implement positive changes in the medication-use process through committee meeting attendance, observation of relevant activities, quality improvement projects, drug monographs/formulary reviews, policy development/updates, and development/implementation of clinically-oriented electronic order sets. They gain exposure to every aspect of pharmacy operations and the medication-use system, including clinical programs, budgeting, staffing, evaluations, formulary and inventory management, renovations, quality improvement, regulatory compliance, and much more. Residents also meet with their preceptor periodically for topic discussions.
**Research/Project**

- 12-month, longitudinal learning experience
- During the year, each resident must develop and complete at least one major project on some element of pharmacy practice, utilizing the support and guidance of experienced project advisors. Residents will be provided direction through each step of their projects, including the Institutional Review Board approval process and completion of project manuscripts. The primary purpose of the learning experience is to provide each resident with experience in development, implementation, analysis, and presentation of a major project. The projects should be manageable, directed toward useful outcomes, and should not be mere academic exercises for the sole purpose of satisfying this requirement. The projects may be in the form of original research; quality improvement exercises; or the development, enhancement, or evaluation of some aspect of pharmacy operations or patient care services. Topics for the project may be each resident’s own choice or selected from a list of potential projects compiled by the program. All research projects have a pharmacist preceptor as the primary co-investigator but often have 4 – 6 members composing the research team. Residents also interact regularly with the Residency Advisory Committee (RAC) Research Subcommittee. Residents present their initial project background and methodology at ASHP Midyear Clinical Meeting in December (poster format) and formally present their results at the Mountain States Conference for residents in May. Prior to the last week of the residency program, each resident is required to submit a final project manuscript of publishable form to his/her Research/Project preceptor(s), the RAC Research Subcommittee, and the RPD.

**Service Commitment**

Pharmacy residents are required to be on-site a minimum of eight hours per day, five days per week. Additionally, residents will each be required to staff in the pharmacy every third weekend as well as one holiday. Overall, residents shall not exceed ASHP Pharmacy Specific Duty Hours standard maximum requirement of 80 hours per week, averaged over a 4-week period.

**Pharmacy Practice**

- 8-week rotation
- Pharmacy Practice is the first learning experience for all PGY1 pharmacy residents and runs concurrently with Orientation and the Drug Information – Concentrated rotation. The primary purpose of the Pharmacy Practice rotation is for residents to become confident in the use of pharmacy information systems, evaluation of prescriber orders, and the utilization of the integrated dispensing system, which consists of a combination of a 24-hour patient-specific medication fill, carousel system, automated dispensing machines, and centralized sterile intravenous admixture service. Monitoring of patients’ drug therapy through pharmacy-driven protocols and completing therapeutic interchanges will occur on a regular basis. Residents will also gain exposure to the purchasing of drug products; security, storage, and inventory control; as well as the pharmacy billing systems. Residents are expected to develop sufficient skills in dispensing, drug distribution, and security in order to provide high quality patient care, interact positively with the pharmacy staff and other healthcare personnel, and be able function independently within the medication-use system.
**Staffing**

- 10-month, longitudinal learning experience (September – June)
- Staffing is a continuation and augmentation of concepts introduced in the Pharmacy Practice rotation. The focus of the staffing longitudinal learning experience is on the provision of hospital pharmacy services as they relate to other healthcare practitioners. Since a primary goal of the learning experience is to develop the residents’ abilities to practice independently and function within the medication-use system at Billings Clinic, the residents will staff clinical pharmacist shifts approximately every 3rd weekend, a majority of which will be in the main inpatient pharmacy with the remainder as decentralized float shifts. Each resident may also be asked to work one holiday (New Year’s Day, Thanksgiving Day, Memorial Day, or Labor Day). However, in order to maximize learning and minimize disruption in clinical rotations, residents will *not* be utilized to cover shifts for co-workers who have “called in-sick” unless no other replacements may be found. Residents are allotted one day off (typically Mondays or Fridays) for working their weekend shifts.

**Selective Rotations/Experiences (residents choose two)**

**Direct Patient Care**

**Ambulatory Care: Internal Medicine (AC – IM)**

- 5-week rotation
- AC – IM rotation is centered within Billings Clinic’s Internal Medicine department. The IM Clinic is a pharmacist-directed disease-state focused ambulatory care practice using a collaborative practice model between a pharmacist and physicians. The collaborative practice involves protocol-driven, collaborative drug therapy management of hyperlipidemia, hypertension, asthma, COPD, smoking cessation, as well as providing comprehensive medication management. New consultations/appointments are allotted 60 minutes per patient, while follow up visits typically last 30 minutes per patient. Patients are scheduled between the hours of 1300 – 1530 (Monday through Friday).

**Ambulatory Care: Psychiatry (AC – Psych)**

- 5-week rotation
- AC – Psych rotation is based at RiverStone Health, which is a community health center providing comprehensive primary care and preventative medicine services for patients in the Billings area. It is also the home base of the Montana Family Medicine Residency (MFMR) medical residency program. Typical clinic hours are 0800 – 1200 and 1300 – 1700. Residents will be intimately involved in the care of patients with a variety of mental illnesses appropriate to be treated in the primary care setting. All cases will be discussed with the preceptor and recommendations will be given to the patients’ primary care providers as needed. The resident will also serve as the chief drug information resource for providers at RiverStone Health during clinic hours through an “open door” policy.

**Emergency Medicine**

- 5-week rotation
- Emergency Medicine is focused on enhancing the residents’ abilities to provide manage patients with medical emergencies. This rotation is based out of the Emergency Department (ED). Pharmacy services in the ED are provided by one decentralized pharmacist from 1430 – 0100; a portion of the ED pharmacist shift covers patients in the ED as well as ICU and the cardiology unit. The ED pharmacist provides primary coverage for CPR events from 1600 – 0100. Residents are expected to gain proficiency with the ED pharmacist’s responsibilities, including patient profile reviews, protocol management, CPR attendance, assisting with emergent patient care, and much more.
Geriatrics/Long-Term Care
  • 5-week rotation
  • Geriatrics/Long-Term Care provides residents with experience caring for elderly and long-term care patients. This rotation is centered at Aspen Meadows (long-term care facility). Aspen Meadows is a 125-bed joint long-term care and assisted living facility with an average daily census of 110 – 115 patients. Residents perform detailed reviews of patient charts, medication orders, profiles, and conduct patient/family interviews in order to identify and resolve medication-related issues and optimize drug therapy. Residents function as an integral part of the interdisciplinary team and assist providers with selecting medication therapies that comply with the Centers of Medicare and Medicaid (CMS) guidelines.

Medication Reconciliation/Transitions of Care
  • 5-week rotation
  • Medication Reconciliation/Transitions of Care (MR/TOC) is a comprehensive direct patient care rotation. The MR/TOC pharmacists are available for consult Monday through Friday 0730 – 1900 and 0730 – 1800 on weekends. The MR/TOC is split in two separate services, MR-MED and MR-SURG. MR-MED primarily works with medical services including but not limited to hospitalists, oncologists, and cardiologists. Daily activities include reconciling medication lists for patients transferring to a skilled nursing facility, obtaining accurate medication histories for complicated medical patients, interacting with hospitalists, and reconciling medications. MR-SURG works with surgical teams including General Surgery; Orthopedics; Neurosurgery; Ear, Nose, & Throat; and others. Daily activities include reviewing, organizing, and prioritizing MR-SURG consults; interacting with admission-discharge-transfer nurses, surgeons, and their midlevels; and reconciling medications. The MR/TOC service also has a MR-F (float pharmacist) and 2 medication history technicians who work in the ED. Residents will be heavily involved with patients admitted and discharged through the orthopedic and general surgery services. They will have extensive exposure to patient interviewing and counseling.

Neonatology/Pediatrics/Women’s Health
  • 5-week rotation
  • Neonatology/Pediatrics/Women’s Health focuses on enhancing the residents’ abilities to provide comprehensive pharmaceutical care to neonates, pediatrics, and OB/GYN patients. This rotation is centered on the Family Birth Center (FBC), a multi-functional unit consisting of labor & delivery, the neonatal intensive care unit, as well as the pediatric unit. Pharmacy services in FBC are provided by one decentralized pharmacist from 0700 – 1530, Monday through Friday. Residents actively participate in interdisciplinary rounds and other clinical activities with the FBC pharmacist specialist. Residents become familiar with neonatal and pediatric medications, nutrition, and responding to emergent situations (e.g., CPRs) in these patient populations. They will also help care for pregnant patients and address their unique pharmacotherapy needs.

Oncology
  • 5-week rotation
  • Oncology provides residents with comprehensive exposure to patients with cancer. Billings Clinic’s Cancer Center provides outpatient treatment facilities for radiation and a 26-chair Infusion Center. Pharmacy services are provided by two oncology pharmacists from 0730 – 1730, Monday through Friday. Oncology services are also provided in the Inpatient Cancer Care unit. Residents gain experience in both the inpatient and outpatient oncology settings, attend numerous interdisciplinary learning opportunities (e.g., tumor boards), and are actively involved in symptom management and patient education.