

Erie County Medical Center

Longitudinal Advanced Pharmacy Practice Experiences

Erie County Medical Center (ECMC) is an academic teaching facility with over 600 inpatient beds, on- and off-campus health centers, more than 30 outpatient specialty care services, and Terrace View, a 390 bed long-term care facility. ECMC is a Level 1 Adult Trauma Center, as well as the regional center for burn care, transplantation, behavioral health services, medical oncology, head and neck cancer care, and rehabilitation.

The Pharmacy Department at ECMC provides services around the clock and is supported by almost 100 staff members, including pharmacists, technicians, interns, and residents. The department provides distributive and clinical pharmacy services throughout the hospital and outpatient clinics.

The purpose of the longitudinal Advanced Pharmacy Practice Experience (APPE) is to provide students with a structured professional experience, applying knowledge learned in the classroom to the practical setting. This gives students the opportunity to gain confidence in advanced therapeutics, learn from a unique patient population, and develop professional and collaborative relationships. Longitudinal APPEs also prepare students for post-graduate training, giving them a sample of the learning experiences and responsibilities of a pharmacy resident. Professional relationships built with prospective residency preceptors and project opportunities often make students more desirable residency candidates.

The longitudinal APPE at ECMC consists of two consecutive rotations which includes a Hospital Health-Systems rotation plus one of the other rotations listed. All rotations are subject to preceptor availability. Students applying for a longitudinal experience will be given preference over those not completing a longitudinal APPE.

Hospital Health-Systems Experience

Orientation to the department and to the hospital takes place during one rotation. Activities involve patient monitoring through various hospital reports, working with decentralized pharmacists and technicians, order entry and verification, therapeutic drug monitoring, and drug preparation and delivery. This time period allows the student to gain familiarity with the pharmacy staff, computer system, therapeutic drug monitoring, and various other day-to-day pharmacy activities.

Ambulatory Clinical Rotations

Transitions of Care

Preceptor: Sarah McDougall

Students will be actively involved in a multidisciplinary transitions of care project. They can expect to assist with patient education initiatives and care coordination with retail pharmacies and outpatient providers. In addition, they will be heavily involved in population health initiatives, such as statin use in diabetes and cardiovascular disease. While on rotation the student will receive knowledge in a variety of areas, including the process of a successful hospital discharge, social determinants of health, and healthcare metrics.

Outpatient HIV / Infectious Diseases

Preceptor: Angela Borton

The YOU Center for Wellness is a multidisciplinary clinic that offers a broad spectrum of treatment for infectious diseases, including HIV, STIs, solid organ transplant infections, post-surgical infections, chronic osteomyelitis, fungal infections, latent tuberculosis.

Our pharmacy team consists of a clinical pharmacist and dedicated specialty pharmacy staff (pharmacist and liaison) who collaborate continuously to manage care for 60+ patients on long-acting injectable therapies for treatment or prevention of HIV. Pharmacists in this clinic serve as a resource for antiretroviral regimen design, patient education,

adherence counseling, drug interactions, adverse drug reactions, coordination and transitions of care, and medication management including shared decision-making and primary care for patients living with HIV.

Inpatient Clinical Rotations

Medical Intensive Care Unit (MICU)

Preceptor: Natalie DelGuidice

This clinical rotation is designed to introduce students to care of the critically ill adult patient. Through direct patient care activities, topic discussions, and independent study, students will build on existing knowledge and have to opportunity to develop the clinical skills needed to make pharmacotherapeutic recommendations for ICU patients. Activities to be completed during the rotation include daily rounds with an interdisciplinary team, case presentations, topic discussions, drug information questions, and a final formal presentation on a critical care topic. In addition to general critical care pharmacology, patients to be encountered and examples of topics to be covered include shock, pulmonary embolism, status epilepticus, mechanical ventilation and sedation, acid-base disorders, decompensated heart failure, meningitis, renal failure, fulminant hepatic failure, and toxic ingestions.

Trauma Intensive Care Unit (TICU)

Preceptor: Graziella Furnari

This experience is very similar to the MICU rotation in regards to activities to be completed during the rotation. Notable differences include the patient population (trauma and surgical) as well as the structure of the interdisciplinary team. Students rotating through the TICU will be part of a teaching service which typically consists of an attending surgeon, residents (surgical, anesthesia, emergency medicine, orthopedic, ear/nose/throat, neurosurgery) and medical students (MS4).

Patients and topics to be covered may include but not be limited to neurosurgery (intracranial pressure management, spinal cord compression, and seizure prophylaxis), infectious disease (post-operative infectious complications, VAP/HAP in trauma, skin/soft tissue infections, and intra-abdominal infections), central diabetes insipidus, hemorrhagic and neurogenic shock, and ICU analgesia, sedation, and neuromuscular blockade.

Emergency Medicine

Preceptor: Kevin Chilbert

The Emergency Medicine Department at Erie County Medical Center serves as a Level 1 Trauma Center. It is a structured teaching service with varying years of emergency medicine medical residents, surgery residents, and residents of other specialties rotating through. The pharmacy student will be introduced to the emergency medicine team and help to provide pharmaceutical care to critically and non-critically ill patients. The typical day to day tasks will be to support the Emergency Department Pharmacist with completing medication histories on those patients admitted, projected to be admitted, routine patients in the ED, and on those where a medication history may vastly impact the care they receive in the ED (such as drug overdose). Throughout the rotation, the student will also have opportunities to problem solve, have health care team interactions, gain communication skills, interact with patients and/or families, apply pharmacokinetic principals, and provide drug information. These are emphasized through daily encounters with patients, the emergency medicine team, and other healthcare team members. The student will have opportunities to respond to level 1 and level 2 traumas, cardiac arrests, stroke, and rapid sequence intubations. There will be numerous topic discussion for the student to choose from to gain experience reading and evaluating guidelines and primary literature. At the conclusion of this rotation the student will feel comfortable with workflow of the emergency department and how the pharmacist can play a unique role in a variety of settings.

Infectious Diseases

Preceptor: Erin Occhino

Within this clinical rotation, the student will gain a variety of experiences optimizing antibiotic therapy for inpatients. The primary goal of the infectious diseases team is to provide the health system and patients a prospective and interventional approach to optimizing the use of antimicrobial agents. By the end of this rotation, the resident should be able to demonstrate a basic knowledge of pathologic infectious organisms and principles of microbiologic assessment including antibiotics and antifungal agents. Through rounding with infectious disease consult service, the student will gain experience of empiric antibiotic regimens with optimal dosing as well as appropriate de-escalation

interventions and duration of therapy recommendations. Additionally, they will gain exposure of introductory microbiology lab practices and be introduced to PK/PD dosing of vancomycin/aminoglycosides.

Disease states that will be reviewed but are not limited include the following: pneumonia (community acquired and hospital associated), urinary tract infection, skin and soft tissue infections, bone and joint infections, intra-abdominal infections, opportunistic infections, antibiotic associated diarrhea (C. difficile infections), bacteremia, central nervous system infections, and surgical site infections.

Non-Clinical Rotations

Hospital Administration

Preceptor: Ashley Halloran

Students will be actively involved in leadership and management of the Pharmacy Department during their learning experience. They will attend multiple meetings, taskforces and potentially integrated into an enterprise wide initiative during their rotation. They can expect to have interaction with other department leaders as well as hospital senior and executive leadership. While on rotation the student will receive knowledge on and work with key functions of the entire pharmacy department, included but not limited to personal management, policy and procedure development, pharmacy law (both State and Federal), supply chain, compliance, 340B and pharmacy finance.

Application Process

Applications for the ECMC longitudinal APPEs can be submitted to the college.

Questions about the longitudinal experience can be directed to:

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