

# PGY2 Emergency Medicine Pharmacy Residency

## Brief Hospital and Pharmacy Department Overview

Brigham and Women's Hospital, located in Boston's Longwood Medical Area, is an 800+ bed nonprofit teaching affiliate of Harvard Medical School and a founding member of Mass General Brigham (formerly Partners HealthCare). In 2023-2024, BWH was named among the top hospitals in the United States by US News & World Report Honor Roll of America's Best Hospitals. The Department of Pharmacy provides services to inpatient, outpatient, and satellite clinic locations throughout the Boston area. The department is regarded as an innovator and leader in medication safety technology, clinical information systems, and clinical pharmacy services at the local and national level.



## General Information

The Department of Pharmacy at Brigham and Women's Hospital recruits residency candidates from all across the U.S., many of whom bring diverse backgrounds and perspectives. The department offers a specialized residency in emergency medicine pharmacy practice. This one-year program is designed to provide advanced training in the area of emergency medicine pharmacotherapy and research.

## Program Fundamentals

The primary emphasis of the emergency medicine residency is to develop clinicians with expertise in emergency medicine pharmacotherapy and become integrated members of the interdisciplinary emergency medicine team. Over the course of the year, the resident will gain experience in the management of patients in the emergency department setting, lead a comprehensive research project, strengthen their communication skills through formal and informal presentations, and participate in emergency medicine and pharmacy-related interdisciplinary hospital committees. In addition, the resident will enhance their teaching skills by precepting pharmacy practice residents and students on emergency medicine pharmacy rotations.

Residents will rotate through a series of rotations designed to meet the goals and objectives of the PGY2 in emergency medicine.

For additional information on resident learning experiences, additional required activities, application process, and other specific program details please see the [Pharmacy Residency Manual](#). You can also check us out on Twitter [@BrighamPharmacy](#)!

## Brigham and Women's Hospital and Emergency Medicine Overview



Brigham and Women's Hospital (BWH) is an 800+ bed, tertiary-care, academic medical center in Boston, Massachusetts. It is a major teaching hospital of Harvard Medical School and part of Mass General Brigham (MGB), a single, integrated health care system that consists of 16 institutions that encompass a range of health care organizations. The hospital provides a broad range of clinical services and specialties including cancer care, cardiology and heart surgery, endocrinology, gastroenterology and GI surgery, geriatric care, obstetrics and gynecology, neonatology, nephrology, neurology and neurosurgery, orthopedics, pulmonology, rheumatology, transplantation, and urology.



The Department of Pharmacy Services is dedicated to placing a priority on patient care and safety, promoting research and education, and integrating technology innovation with clinical services. The department is composed of approximately 200 employees providing services to many different areas, including: inpatient and outpatient services, emergency department, investigational drug services (IDS), perioperative area, ambulatory infusion center, sterile products division, infectious diseases, renal, heart, and lung transplant clinics, and anticoagulation management service. Pharmacists provide clinical and distributive services through an integrated, patient-centered, unit-based, decentralized pharmacy practice model. The department offers an ASHP-accredited PGY1 [general pharmacotherapy residency](#) and six different PGY2 specialty pharmacy residences in emergency medicine, [infectious diseases](#), [critical care](#), [cardiology](#), [investigational drugs & research](#), and [thrombosis and hemostasis](#).



The emergency department at Brigham and Women's Hospital currently has over 80 licensed beds with an annual census of approximately 62,000 cases. Brigham and Women's Hospital provides care for the most acute patients and is a Level I Trauma Center, Comprehensive Stroke Center, American Burn Association Verified Burn Center, and a recipient of the Gold-Level ELSO Award for Excellence in Life Support from the Extracorporeal Life Support Organization. Residents will have the opportunity to work alongside nurses, physicians assistants, interns, residents, fellows, and attendings from a variety of disciplines. The integration of pharmacy services into the emergency department creates additional opportunities for research and quality improvement initiatives.



The Department of Pharmacy provides clinical emergency medicine support 24/7. Clinical services include responding to rapid responses and codes in both the emergency department and outpatient clinics located within the hospital, providing drug expertise in cases of complex pharmacological problems, and completing therapeutic drug monitoring as indicated within the department. Additionally, transitions of care and medication reconciliation services are provided to patients being admitted to inpatient services from the emergency department.

## PGY2 Emergency Medicine Specific Program Overview

The BWH pharmacy residency programs are all one-year programs that provide diverse rotations in many areas of specialization and offer experience in the provision of adult patient-centered care. The scheduling of resident rotations includes a combination of required and elective rotations to ensure that the resident is exposed to a variety of patient populations, medications, disease states, range of complexity, and interdisciplinary team members.

All PGY2 emergency medicine residents will complete a required orientation learning experience with the Brigham and Women's Pharmacy Department. This introductory training experience will be used to complete basic onboarding tasks similar to any new clinical staff member. This will also serve to provide administrative insights into the provision of pharmacy services within the hospital and to contribute to perspectives for subsequent participation in operational, clinical and/or administrative project activities.

The length of time for a learning experiences ranges from 2 - 6 weeks. The learning experiences listed on page 4 comprise the required residency experiences for the program. In addition to completion of all required rotations, residents will choose one (external candidates) or two (internal candidates) elective rotations of their interest to complete. All required and elective learning experiences are listed on page 4.

For additional information on resident learning experiences, additional required activities, and other specific program details please see the [Pharmacy Residency Manual](#)



### Accreditation

- ASHP-accredited



### Positions Available

- One domestic PGY2 position
- One international PGY2 position



### Duration

- One year
- July 1<sup>st</sup> - June 30<sup>th</sup>



### Stipend/Benefits

- ~\$65,900
- Health/dental/vision/life insurance
- 403(b) retirement plan
- Paid time off (PTO)

## Emergency Medicine PGY2 Rotations

### Required Learning Experiences\*

Orientation

Emergency Medicine I

Emergency Medicine II

Emergency Medicine - Community

Emergency Medicine - Overnight

Poison Center/Toxicology

Burn/Trauma Intensive Care Unit

Neurosciences Intensive Care Unit

Medication Safety - Emergency Medicine

Advanced Integrated Clinical Pharmacy Practice

Selective Required:

Medical Intensive Care Unit/Mixed Medical Surgical Intensive Care Units

### Elective Learning Experiences

Pediatric Emergency Medicine

Allergy

Infectious Disease

Transitions of Care

Thrombosis and Hemostasis Management

Coronary Care Intensive Care Unit

Cardiac Surgery Intensive Care Unit

### Preceptors

A full list of pharmacist preceptors at BWH with photos and titles can be found [here](#)

Rotation length: 4 weeks; ED I and ED II are 4-6 weeks, Poison Center/Toxicology is 2 weeks, Orientation is 6 weeks for external residents, 1 week for internal residents

\*Unless otherwise approved by RPD/RAC

### Longitudinal Experiences

Emergency Medicine Leadership/Administration

Research Project and Medication -Use Evaluation

Committee Assignments

Pharmacy Department Contributions, Staffing, and Presentations

## Emergency Medicine PGY2 Residency Leadership Team



### Kaylee Marino, PharmD, BCPS, BCCCP, BCEMP

Clinical Pharmacy Specialist III, Emergency Medicine/Neurocritical Care  
PGY2 Emergency Medicine Pharmacy Residency Program Director  
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### Christine Kim, PharmD, BCCCP

Clinical Pharmacy Specialist III, Emergency Medicine/Critical Care  
PGY2 Emergency Medicine Pharmacy Residency Coordinator  
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### Meghan Laquerre, PharmD, BCCCP

Clinical Pharmacy Specialist II, Emergency Medicine/Critical Care  
PGY2 Emergency Medicine Pharmacy Residency Coordinator  
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### Karlie Knobloch, PharmD, BCEMP

Clinical Pharmacy Specialist I, Emergency Medicine  
PGY2 Emergency Medicine Pharmacy Residency Coordinator  
kknobloch@bwh.harvard.edu





## Current BWH Emergency Medicine PGY2 Resident



**Kaden Shen, PharmD**

PGY1: Brigham and Women's Hospital, Boston, MA



**Sara Rajab, PharmD**

PGY1: Melrose Wakefield Hospital, Melrose, MA

## Previous BWH Emergency Medicine PGY2 Resident

2023-2024



**Nick Monkemeyer, PharmD**

Clinical Pharmacist, Emergency Medicine/Pediatrics  
UW Health, Madison, WI

PGY2 EM: Brigham and Women's Hospital, Boston, MA

PGY1: Brigham and Women's Hospital, Boston, MA

# Requirements for Successful Completion of the PGY2 Emergency Medicine Residency Program

- Licensed as a practicing pharmacist in the state of Massachusetts within 120 days from the start date.
- Completion of program and department orientation as appropriate per resident track (internal vs. external residents) as defined in learning experience description.
- Completion of all required rotation learning experiences
  - Orientation
  - Emergency Medicine I
  - Emergency Medicine II
  - Emergency Medicine - Community
  - Emergency Medicine - Overnight
  - Poison Center/Toxicology
  - Burn Trauma ICU
  - Neurosciences ICU
  - Medication Safety - Emergency Medicine
  - Advanced Integrated Clinical Pharmacy Practice
  - Selective Required
    - Medical ICU/Mixed Medical Surgical ICU
- Completion of 1 (external residents) or 2 (internal residents) elective learning experiences
- Completion of all required longitudinal learning experiences
  - Emergency Medicine Leadership/ Administration
  - Research project and Medication-use evaluation
  - Committee assignments
  - Pharmacy Department Contributions, Staffing, and Presentations
- Document the completion of all required PGY2 Emergency Medicine Appendix topics in Pharmacademic
- 80% of objectives for the residency are required to be achieved for residency
  - The following objectives must be achieved for residency
    - R1.1.5, R1.1.7, R2.1.1, R2.1.2, R2.2.6, R3.2.1, R4.1.2, R4.1.3, R4.1.4, R5.1.1
  - Completion of documentation of required deliverables per the EM Required Deliverables Table
- Completion of required formal presentations
  - Continuing education program
  - EM clinical pearl email to EM interdisciplinary staff
  - Submission of year-long project to a national conference and completion of a manuscript draft suitable for publication
  - Submission of a clinical pearl to a national/regional conference
  - 5 departmental or multidisciplinary presentations

## Requirements for Successful Completion of the PGY2 Emergency Medicine Residency Program Continued

- Completion of professional practice requirements
  - Completion of Advanced Integrated Clinical Pharmacy Practice and weekend staffing requirements
  - Documentation of moonlighting and duty hours as appropriate in PharmAcademic
- Successful completion of all required documentation
  - Initial assessment
  - Quarterly self-assessment as part of the Resident Development Plan
  - All learning experience and preceptor evaluations
  - Final assessment of residency and feedback
- Other Requirements
  - Attend one regional or national research summit/conference
  - Obtain Basic Life Support/ Advanced Cardiac Life Support/Pediatric Advanced Life Support certification by the end of the residency year