

Beth Israel Lahey Health   
Beth Israel Deaconess Medical Center

# Beth Israel Deaconess Medical Center Pharmacy Residency Programs 2023-24 Manual

Boston, MA



PGY1 Pharmacy Residency	PGY2 Infectious Diseases	PGY2 Critical Care	PGY2 Solid Organ Transplant
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Candidate

PGY2 Ambulatory Care

In affiliation with





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## About Beth Israel Deaconess Medical Center (BIDMC)

**Our Mission:** To provide extraordinary care, where the patient comes first, supported by world class education and research.

BIDMC is an academic medical center located in the heart of Boston with a passion for caring for our patients like they are family, finding new cures, using the finest and latest technologies, and teaching and inspiring caregivers of tomorrow. We put people at the center of everything we do, because we believe in medicine that puts people first. Located in the Longwood area of the city, our medical center consists of 743 licensed inpatient beds inclusive of 99 critical care beds, ~500 medicine and surgery beds, 24 inpatient psychiatric care beds, and 60 neonatal intensive care beds. In addition to our robust acute care services, our patient care extends to outpatient and ambulatory care including retail and specialty pharmacy services and ambulatory care clinics including primary care and a number of specialty care clinics including Advanced Heart Failure, Hematology-Oncology, Infectious Diseases, Solid Organ Transplant, and many more!

The mission of the Beth Israel Deaconess Medical Center is to serve our patients compassionately and effectively, and to create a healthy future for them and their families. Our mission is supported by our commitment to personalized, excellent care for our patients; a workforce committed to individual accountability, mutual respect and collaboration; and a commitment to maintaining our financial health. Our partnership with Harvard Medical School and our role as a major Harvard teaching hospital strengthen our ability to train, teach and create new knowledge. We are committed to recruiting the best physicians, scientists, nurses and others to support these activities.

We recognize that the diversity, talent, innovation and commitment of all of our employees contribute to our strength and are a major component of our success. We greatly value the leadership and participation of our trustees, overseers, and donors who make an invaluable contribution to our ability to carry out our mission to serve patients, students, science, and our community.

## BIDMC Department of Pharmacy

**Our Mission:** To provide extraordinary pharmaceutical care and services to the BIDMC community

### Operating Principles

- To realize, always, that the patient is at the center of all that we do
- To provide pharmaceutical care responsibly, professionally, and with the utmost compassion
- To foster fail-safe medication use throughout the medical center through systems enhancements, process improvement, education, research and scholarship
- To increase awareness among all members of the healthcare team and among administrators, specifically about the value-added role of the pharmacy in delivering patient care
- To foster a work environment that is conducive to the delivery of optimal pharmaceutical care to patients across the continuum of services provided at the medical center
- To foster an environment that is conducive to individual professional development and advancement

- To lead efforts towards achieving best practices on controlled substances
- To promote financial stewardship through cost-effective care and the optimization of revenue streams
- To protect the 340B Drug Pricing Program by maintaining a high level of compliance

The Department of Pharmacy at BIDMC employs approximately 200 FTEs including both inpatient and outpatient services. This consists broadly of an administrative team, clinical pharmacy specialists, clinical pharmacists, pharmacy residents, pharmacy technicians, students, and other support personnel who provide comprehensive pharmacy services to patients and other members of the healthcare team.

Inpatient and outpatient pharmacy services are provided by clinical pharmacists/specialists in a team based practice model. Within this model, pharmacists collaborate with interdisciplinary teams in assigned patient care areas/clinics and are responsible for the pharmaceutical care and medication management of their patients. In addition to medication order verification, pharmacists are actively involved in providing drug information, performing pharmacokinetic evaluation and dosing for select medications, reviewing medications for renal dose adjustment, reviewing pertinent laboratory information and assessing the impact on the patient's medication profile, and monitoring target medications. This spectrum of care includes provision of services to adult and geriatric patient populations as well as premature and full term infants. In addition to the team-based/clinic pharmacy practice, the pharmacy operates several specialty areas including: investigational drugs, ambulatory infusions, and oncology infusion clinic services.

Medication reliability and safety are integral to the provision of optimal pharmaceutical care and the pharmacy including the Medication Safety division continually reviews medication incident reports, adverse drug events and medication errors to identify potential areas for improvement of systems. Active involvement in multidisciplinary quality assurance programs, assist the pharmacy in evaluating the specific needs of its patients.

The Department of Pharmacy works with both subcommittees and the overarching Pharmacy and Therapeutics (P&T) committee to review medications for formulary status, to perform and review medication use evaluations, to develop medication use policies, and to contribute to clinical resource management activities of the medical center. The P&T Committee provides an interdisciplinary forum that facilitates consistent communication between the members of the Department of Pharmacy and physicians, nurses, and other allied health professionals.

BIDMC is a part of the larger, regional Beth Israel Lahey Health (BILH) network and collaborates across the system level to provide coordinated pharmacy services across the greater Boston community. Members of the BIDMC team are involved in guideline/policy work and contribute to medication policy committees including a BILH System P&T Committee, Ambulatory Care, Infectious Diseases/Antimicrobial Stewardship, and Hematology Oncology committees and a Clinical-Operations Workgroup to tackle harmonization as a network.

In addition to the provision of inpatient and outpatient pharmaceutical services, the pharmacy department also serves as an Advanced Pharmacy Practice Experience (APPE) site for pharmacy

students for nearby schools of pharmacy including serving as a practice site for Clinical Faculty from both Boston-based schools of pharmacy, MCPHS University and Northeastern University.

<b>BIDMC Pharmacy Residency Programs Administration and Leadership</b>	
<b>PGY1 Pharmacy Practice Residency Program</b>	
<b>Residency Program Director</b> Nicholas Edmonds, PharmD, BCPS Clinical Pharmacist Specialist II – Medicine/Surgery <a href="mailto:nedmonds@bidmc.harvard.edu">nedmonds@bidmc.harvard.edu</a>	<b>Residency Program Coordinator</b> George Abdallah, PharmD, BCCCP, BCCP Clinical Pharmacist Specialist II – Cardiac and Cardiovascular Intensive Care <a href="mailto:gabdalla@bidmc.harvard.edu">gabdalla@bidmc.harvard.edu</a>
<b>PGY2 Residency Programs</b>	
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<b>Cardiology Program Director</b> Sonia Kothari, PharmD, BCPS, BCCP Clinical Pharmacy Specialist – Cardiology <a href="mailto:skothari@bidmc.harvard.edu">skothari@bidmc.harvard.edu</a>	<b>Cardiology Program Coordinator</b> Julie Kelly, PharmD, BCPS, BCCP Clinical Pharmacist Specialist – Cardiometabolic <a href="mailto:jkelly24@bidmc.harvard.edu">jkelly24@bidmc.harvard.edu</a>
<b>Critical Care Program Director</b> I. Mary Eche, PharmD, BCCCP, FCCM Clinical Pharmacy Manager – Critical Care / Emergency Medicine <a href="mailto:ieche@bidmc.harvard.edu">ieche@bidmc.harvard.edu</a>	<b>Critical Care Program Coordinator</b> Michelle Wang, PharmD, BCCCP Clinical Pharmacist Specialist – Critical Care <a href="mailto:mwang11@bidmc.harvard.edu">mwang11@bidmc.harvard.edu</a>
<b>Infectious Diseases Program Director</b> Chris McCoy, PharmD, BCPS AQ-ID, BCIDP Clinical Pharmacy Manager – Infectious Diseases / Antimicrobial Stewardship <a href="mailto:cmccoy@bidmc.harvard.edu">cmccoy@bidmc.harvard.edu</a>	<b>Solid Organ Transplant Program Director</b> <i>TBD</i>

**PGY1 Purpose:** PGY1 residency programs build upon Doctor of Pharmacy (PharmD) education and outcomes to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives. Residents who successfully complete PGY1 residency programs will be skilled in diverse patient care, practice management, leadership, and education, and be prepared to provide patient care, seek board certification in pharmacotherapy (i.e., BCPS), and pursue advanced education and training opportunities including postgraduate year two (PGY2) residencies.

**PGY2 Purpose:** PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced

patient care or other specialized positions, and board certification in the advanced practice area, if available.

## **Program Administration & Leadership (cont.)**

### **Pharmacy Residency Program Director**

The Pharmacy Residency Program Director (RPD) is responsible for the general leadership and administration of the Residency Program. Key program leadership responsibilities includes, but are not limited to:

- Organization & leadership of RAC to provide guidance for the program's conduct
- Oversight and documentation of the progression of residents regarding program requirement
- Implementation of criteria for appointment and reappointment of preceptors
- Evaluation, skills assessment, and development of preceptors in the program
- Creating and implementing a preceptor development plan for the residency program
- Continuous residency program improvement in conjunction with RAC
- Implementation and adherence to appropriate accreditation standards, regulations, & policies
- Collaborating with department leadership to ensure departmental support for resident training

The RPD may designate a Residency Program Coordinator to serve as a leadership partner who will collaborate and participate in the leadership of the residency.

### **Residency Program Coordinator**

The Residency Program Coordinator (RPC), if one has been appointed, serves in a leadership and overall supportive role within the residency program. They will assist the Residency Program Director (RPD) with duties/activities that will ultimately contribute to the success of the residents and to the program.

Description of Responsibilities:

- Takes minutes at Residency Advisory Committee meetings
- Collaborates with RPD and department managers to schedule resident's learning experiences (ex. new resident orientation and training, learning experience schedules, etc.)
- Assists with the coordination of PharmAcademic (i.e. constructing rotation schedules, preceptor coordination, tracking overdue evaluations, etc.)
- Collaborates with Resident Advisors to assess progress of the residents and achievement of goals and objectives
- Assists RPD to ensure completion of quarterly evaluations and updates to resident's individual development plans
- Participates in recruitment activities (i.e. local/national residency showcases, recruitment material updates, website updates).
- Assists with coordinating residency program candidate interviews
- Assists with program quality improvements and continuous program evaluations (provided by resident feedback, preceptor feedback, RAC Retreat, etc.)

## Residency Advisory Committee

The Residency Advisory Committee (RAC), comprised of preceptors and members of the residency administration and leadership group, governs the Residency Program at BIDMC and serves to support the program goals and program improvements. Additionally, RAC meetings provide a forum to discuss and monitor each resident's progress toward successful completion of the BIDMC residency program.

The RAC is chaired by the RPD and meets at least quarterly throughout the residency year.

### RAC Responsibilities and Activities:

- Review and discuss resident progress based on information including, but not limited to:
  - Progress and barriers on longitudinal activities
  - Learning experience performance focusing on learning objectives rated as “Needs Improvement” or “Unsatisfactory”
  - Resident self-reflection
- Discuss resident quarterly development plans
- Review and ensure program compliance with the ASHP Accreditation Standards for Pharmacy Residencies
- Participate in candidate recruitment and selection
- Provide continuous discussion and feedback for the purpose of ongoing program improvement

**RAC Composition:** all preceptors and residency faculty are invited to all RAC meetings; however, committee meetings will at a minimum include:

- Residency Program Director and/or Program Coordinator

## Pharmacy Residency Preceptor Requirements

In alignment with the accreditation and practice standard of ASHP, the BIDMC Residency programs are committed to providing residency training delivered by qualified pharmacist preceptors. The RPD will review preceptor qualifications and experience at least annually to ensure preceptors meet the qualifications set forth by ASHP.

All preceptors (new and experienced) will review and complete an Academic and Professional Record. The RPD will review completed forms and compare to the current ASHP Accreditation Standards (standard 4.5, 4.6a, 4.6b, 4.6c). Preceptors not meeting all qualifications will work with their manager and the RPD to complete a “Preceptor Development Plan” (see below).

## Ongoing Preceptor Development

The RPD, in conjunction with RAC, will review preceptor qualifications and experience at least every four years to ensure preceptors meet qualifications set forth by ASHP.

To complement the preceptor development programs and activities conducted at BIDMC, a wide number of preceptor development resources are available online and can be utilized by preceptors for their personal development. Examples include:

- Pharmacist Letter Preceptor: <http://www.pharmacistsletter.com>

- American Society of Health Systems Pharmacist (ASHP): [www.ashp.org](http://www.ashp.org)
- Precepting tools through Colleges of Pharmacy (ex. preceptors for Northeastern University have access to preceptor development opportunities via their e-value access)

## **New Preceptors**

Clinical Pharmacists at BIDMC who wish to become preceptors must submit their intent for consideration and a completed academic and professional record form to the RPD. Submitted information is reviewed to determine if the prospective preceptor meets ASHP Accreditation Standards of a pharmacy residency preceptor. All new pharmacy residency preceptors new to BIDMC, regardless of precepting experience at prior institutions, will be complete New Preceptor Orientation computer-based learning modules as part of their onboarding process.

Preceptor Development Plan		
<b>Date:</b>		
<b>Preceptor Name:</b>		
<b>Preceptor's Manager:</b>		
Preceptor Eligibility (Standard 4.5)		
<input type="checkbox"/> Certification preceptor meets eligibility requirements as defined by ASHP Standard 4.5		
Preceptor Qualifications (Standard 4.6a)		
Qualification Category	Activity to be Completed	Timeline for Completion*
Contribution to Pharmacy Practice (Standard 4.6.a)		
Contribution Category	Activity to be Completed	Timeline for Completion*
Professional Engagement (Standard 4.6.c)		
Professional Engagement Category	Activity to be Completed	Timeline for Completion*

\*Timeline for completion cannot exceed two (2) years

\_\_\_\_\_  
 Preceptor Signature

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Preceptor's Manager Signature

\_\_\_\_\_  
 Date

Residency Program Director Signature

Date

## Resident Candidate Evaluation and Selection

### Requirements and Selection of Residents

All PGY1 and PGY2 Pharmacy Residency Program positions at BIDMC will participate in and be selected following all rules and regulations of ASHP and the National Matching Service (NMS). While candidates are welcome to contact the program and share information about their experience the Residency Advisory Committee (RAC) for any program will ONLY consider and review applications submitted via the Pharmacy Online Residency Centralized Application Service (PhORCAS).

### Commitment to Promoting Diversity, Equity, & Inclusion through Recruitment

In concert with the institution, we are reaffirming our dedication to the embracement of diversity, equity, and inclusion (DEI) in our recruitment efforts and throughout the training year. We celebrate the multiple dimensions of diversity that each member of our community offers, including, but not limited to, race, ethnicity, sex, gender identity, sexual orientation, socioeconomic circumstance, national origin, geographic background, immigration status, ability and disability, physical characteristics, veteran status, political ideology, religious belief, and age.

In January 2018, BIDMC launched a Diversity & Inclusion Task Force, composed of a diverse cross-section of the BIDMC Community, to enrich the medical center's diversity and inclusion efforts. Since then, efforts have been underway to bring BIDMC's rich culture to life. We are committed to advancing an equitable environment in which all people are respected, their voices are heard, and employees/trainees can work to their potential.

In an effort to promoting the recruitment and selection of a diverse residency class the BIDMC Pharmacy Residency Programs will ensure:

- Alignment of candidate evaluation tools (i.e. application scoring rubric, interview questions, and interview evaluation rubrics) with direction from the BIDMC DE&I Task Force to mitigate bias
- A requirement to complete implicit bias training and an Implicit Association Test (IAT) for all preceptors involved in the recruitment and evaluation of candidates

### Residency Candidate Qualifications

- Must be a graduate, or candidate for graduation, of an Accreditation Council for Pharmacy Education (ACPE) accredited (or in the process of pursuing accreditation) Doctor of Pharmacy degree program OR have a Foreign Pharmacy Graduate Equivalency Committee (FPGEC) certificate from the National Association of Boards of Pharmacy (NABP)
  - **PGY2 Candidates:** Proof of graduation as evidenced by providing a copy or photo of a graduation certificate is necessary
- Must hold a pharmacist license or be eligible for licensure as a pharmacist in the state of Massachusetts within 120 days of the commencement of the residency
  - If not licensed as a pharmacist in the state of Massachusetts prior to the residency start date, must be licensed as a pharmacy intern in the state of Massachusetts

- Authorized to work in the United States on a full-time basis. Work authorization sponsorship for pharmacy residency positions is not available.
- Must participate in and obey the rules of the Residency Matching Program (RMP)
- **Additional qualifications for PGY2 Programs:**
  - Residents shall be graduates of an ASHP Accredited or Candidate-Status PGY1 Pharmacy Residency training program

## Application Requirements for BIDMC Pharmacy Residency Programs

All candidates must submit their application materials via PhorCAS. Applications will be reviewed upon complete submission of the following:

- **Letter of Intent:** a one page statement that includes the candidates professional goals, reasons for pursuing the respective residency, and how BIDMC will contribute to achieving their professional goals
- **Curriculum vitae**
- **Three references** completed using the reference form in PhorCAS
- **Official transcript from accredited School/College of Pharmacy**
  
- **Additional application elements for PGY2 Programs:**
  - Proof on continued PGY1 status at an ASHP accredited program
  - Proof of pharmacist licensure in their current state and eligibility for licensure in MA

## Selection of Applicants for Interview (onsite and/or virtual)

Submitted, complete applications in PhorCAS will be reviewed by the RPD and preceptors for each respective residency program utilizing a program-specific, standardized rubric that will consider each candidates letter of intent, reference submissions, and components of the candidates CV including (but not limited to):

- Academic performance (ex. GPA if available, review of passing grades/remediation if no GPA)
- Experiential education (ex. site and type of APPE rotations, advanced certifications)
- Pharmacy work experience (ex. site and type of technician, intern, and/or RPh experience, PGY1 program, if applicable)
- Scholarship (ex. pharmacy publications, state/national presentations and posters)
- Contribution to pharmacy practice (ex. medication use evaluation, quality/process improvement project, formulary review, drug monograph)
- Leadership activities (ex. organizational and/or school officer appointments)
- Teaching experience (ex. tutoring, teaching assistant, precepting learners, didactic lectures)
- Academic and professional recognition (ex. induction to honor society, clinical skills competitions)

Upon completion of application review and any necessary quality assurance, the RPD (and RPC, when applicable) will utilize application rubric scores to confirm a final list of candidates who will be offered an opportunity to participate in an interview. The number of candidates offered an interview will vary by program and by number of positions available.

## Interview and Ranking Process

Candidates selected based on application review will receive an email from the program with an offer to interview including pre-selected interview dates and times. Candidates will be asked to reply with preferred interview dates and interview slots will be filled on a first come, first served basis. The email offer to interview will include a description of the interview day including general itinerary (subject to change) and will include a copy of the current residency program manual for the candidate to review ahead of their interview date.

Interview participants will include residency program leadership (RPD, RPC), department clinical leadership, and clinical preceptors. Current residents will be made available to candidates for questions/discussion. **For PGY2 programs**, interview participants may also include non-pharmacist preceptors, providers (ex. physicians, clinical directors, midlevel practitioners, etc.), and other medical center representatives from the respective specialty area.

All interviewers will utilize a pre-determined set of questions and a standardized scoring tool to evaluate each candidate. Scores will be compiled into a final interview day score to assist with ranking candidates. Each program RAC reserves the right to adjust the rank list based on discussion with all members involved in interviewing candidates and consensus of which applicants most closely match the program goals and opportunities at the medical center. A rank list will be finalized by the RAC and submitted to NMS by the RPD.

## Phase II Match Process

Should a program not fill all eligible residency positions in Phase I of the residency match, the program will seek to offer all open positions through Phase II of the match. The program will utilize the same application evaluation rubrics in determining which candidates to offer interviews and use same set of pre-determined questions and interview evaluation rubric to determine a Phase II rank list. BIDMC Residency programs entering Phase II of the match will utilize the following timeline/dates post-Phase I Match Results Day:

- **Week 1 post-Phase I Match Day:** Candidate application review: will be reviewed for one week beginning the day Phase II application can be submitted (i.e. applications open on Monday thru the end of the day the following Monday)
- **Week 2 post-Phase I Match Day:** Interviews will occur in the second full week of the Phase II application period
  - Interviews may also be scheduled into the following week depending on the number of open positions and number of candidates to be invited to interview

## Post-Match Process

If the program continues to have unfilled positions following Phase II, the program will participate in the post-match process to fill any remaining positions. The program will seek to offer the open position to a previously interviewed applicant who has not found a position during Phase I or Phase II of the match, without any additional interviews. The program may also determine that it will accept applications from other unmatched applicants and review their credentials. If a new candidate's credentials are determined to be acceptable, the program will interview and select a resident based upon the consensus of the participating RAC members.

**NOTE:** If the program does not match through round one and two of the match the RPD reserves the right to choose whether the position will be offered in the post-match process for that residency year.

## Early Commitment to PGY2 Programs

Offered **ONLY** to current PGY1 residents at BIDMC, early commitment to a position in a PGY2 program can be completed in advance of the matching process and can be achieved by fulfilling the following:

- Current PGY1 resident at BIDMC lending to continuous years of employment for the resident
- Successful progress towards ACHR status for required goals/objectives as reflected in the PharmAcademic system for early match candidates
  
- **NOTE:** each respective PGY2 RPD reserves the right to determine if they will choose to early commit to their program in any given year. The PGY2 RPD must notify the PGY1 class no later than the end of the first week of November of the option for early commitment for the subsequent residency year.

## **Early Commitment Application**

Interested BIDMC PGY1 residents must apply no later than the Monday prior to Thanksgiving Thursday with the following documents for the PGY2 RPD and Residency Advisory Committee Review (internal residents do not need to apply through PhORCAS for our early commitment):

- A letter of intent including a statement of professional goals and reasons for pursuing the PGY2 program at BIDMC
- Curriculum vitae
- Recommendation from current PGY1 RPD and at least two other preceptors
- Massachusetts Pharmacist License in good standing at the time of application

## **Early Commitment Interview**

All applicants from the BIDMC PGY1 program will be invited to interview. The interviews will be scheduled prior to the ASHP Midyear Clinical Meeting. Each RPD reserves the right to choose to interview additional candidates at the ASHP Midyear Clinical Meeting prior to making a decision on early commitment. All residents who early commit to a BIDMC PGY2 must sign their BIDMC offer letters by the end of December.

## **Early Commitment Candidate Offer(s)**

The respective RPD and RAC for each PGY2 program will determine whether a position will be offered to an internal PGY1 candidate(s). If the resident declines, the next resident in order may be offered a position for early commitment. Alternately, the program may elect to pursue outside candidates through the RMP process and include the resident(s) that applied for early commitment in their rank list consideration. The internal resident(s) may also decline the offer for early commitment and decide to enter the standard match where they will be ranked against a larger group of candidates.

## **Acknowledgement of Residency Match**

No later than 30 days from the results of the match residents matched to a BIDMC Residency program will receive an acceptance letter acknowledging the match and delineating the general terms and conditions of the residency. Acknowledgment in writing by the resident will constitute acceptance of the match and agreement to fulfill the duties of the residency position for the upcoming year. This acceptance letter will also include important human resource and onboarding information, such as next steps for CORI checks and health clearance through Employee Health.

## **Participation in Recruitment Efforts**

Each resident will assist the RPD and RAC with new resident recruitment efforts. The current residency class is an important source of information and advice for potential candidates and give a unique insight to the program and department culture from a perspective different from preceptors.

### **Residents will participate, at a minimum\*, in the following recruitment activities:**

- BIDMC Virtual Open Houses
- ASHP Midyear Clinical Meeting Residency Showcase (and Personnel Placement Service (PPS) interviews if applicable for their respective program)
- Residency Candidate Interviews

- Each interview will include scheduled time for candidates to interact with current residents

\*Additional recruitment activities may be scheduled throughout the year that residents will be expected to be present for, *subject to RPD and RAC discretion*

## Pharmacy Licensure Requirements and Verification

Participation in the BIDMC Residency Program is contingent on securing and maintaining a license without restriction in the Commonwealth of Massachusetts (MA).

- If a resident is not licensed prior to the start of the BIDMC Residency Program, the **residents must obtain a MA pharmacy intern license**, which they will practice under, until they pass the required examination(s) and receive notification that they are licensed as a pharmacist in MA.
- Residents are expected to be licensed as a pharmacist with the MA Board of Pharmacy within 90 days of the start of their residency program.
  - Should a resident not attain licensure within the 90 days, consideration may be given to extend this deadline on a case-by-case basis if the resident is progressing in the program, has no documented corrective action(s), and can be licensed within the next 30 days.
- Residents will be dismissed from the program if they have not obtained licensure within 120 days of the residency program start date AND by the corresponding date (generally November 1<sup>st</sup>) that allows two thirds of their residency program to be completed as a licensed pharmacist.
- The resident will communicate with the RPD the status of their progress in attaining licensure and confirmation of licensure once notified by the MA Board of Pharmacy.

## Verification of completion of a PGY1 residency for PGY2 residencies

While residents are screened for active enrollment in an ASHP accredited or candidate status PGY1 programs during the application and match process, proof of completion of such requires a check of Pharmacademic graduation status from the PGY1 program and ideally a copy of the certificate of completion within the first 20 days of starting the program. Early match residents will have a copy of their certificate and noted graduation status in Pharmacademic from BIDMC.

### Start Date:

The program start date is generally the first Monday in July but this date may change depending upon the end date of the PGY1 program if starting a PGY2 and ability to complete all necessary onboarding materials in terms of health and CORI clearance. A one to two week delay in start is acceptable and the residency can be extended to those one to two extra weeks for a total 52 week training period.

## Completion of Program Requirements

Upon successful completion of all requirements of the residency program, the resident will be awarded a certificate of completion. This certificate will attest that the resident has achieved competencies consistent with and in accordance with accreditation standards as set forth by ASHP and/or other accrediting bodies.

Prior to certification of completion, residents must have all major program requirements "signed off" by their residency director (**see program appendices for list of requirements**). Return of identification badge, pagers, keys, etc. will also be required prior to receiving the certificate.

### **Program Requirements – Successful Completion of the Pharmacy Residency Program at BIDMC**

Graduation from the Pharmacy Residency Program requires the successful completion of all required elements and activities as defined by the specific program. Progress towards achieving these goals will be monitored at least quarterly as part of the resident's quarterly development plan.

In addition, completion of the BIDMC Residency Program requires an evaluated score of  $\geq 4$  on  $\geq 80\%$  of all evaluated objectives. Progress towards achieving these goals will be monitored at least quarterly by the RPD.

## Salary, Benefits, and Paid Time Off (PTO)

### Salary

PGY1 residents for the **2023-24** year will receive a stipend of **\$52,000**, with accrued PTO

PGY2 residents for the **2023-24** year will receive a stipend of **\$55,000**, with accrued PTO

### Term of Appointment

Residents at BIDMC will be appointed to a term of a minimum of 52 weeks and shall not miss greater than 37 days per 52 week period. Should a resident miss greater than 37 days a program extension must be granted for the resident to successfully complete the residency program and receive a certificate of completion.

- All decisions on extending the residency program will include the resident, RPD, and respective departmental directors
- If a program extension is granted, the resident will receive the same salary and benefits as given during their initial term of appointment
- Program extension will not exceed three (3) months

### Benefits

- As full-time employees of BIDMC, pharmacy residents are offered the same benefits as other full-time employees. Benefits are detailed in the BIDMC Employee Benefits Handbook provided by the BIDMC Human Resources Department.
- Reimbursement for travel and attendance for **one** major meeting (e.g. ASHP Midyear, New England Residency Conference, SCCM, ATC, ID week)
- Additional information on available employee benefits can be found on the BIDMC external website under “Careers”

### Paid time off (PTO) / Earned Time (ET)

- Earned Time – at BIDMC, earned time is your bank of hours that provides paid time off when you are absent due to vacation, holidays, illness, personal reasons, and emergency situations in accordance with **BIDMC Employee Benefits**
- Residents will earn approximately 8 hours of PTO during each two week pay period during their 12 month program
  - Any PTO not taken at the end of the residency year will be cashed out to the resident upon completion of the program. If the resident stays to complete a PGY2 or is hired as staff, the remaining PTO will be transferred to their new position.
- PTO days will be used for holidays (unless the resident is scheduled to staff), sick days, vacation days, interviews and personal days
  - **NOTE:** residents will not miss more than five days of a single learning experience
- Residents will not be required to use PTO for attendance at required activities, including:
  - One major conference

### **Vacation/Personal Days:**

- Scheduled time off for vacation and personal days will be used from the resident's earned PTO bank in accordance with the BIDMC Employee Benefits Policy. All planned time off (vacation, personal days, etc.) must be scheduled in advance with consideration of all residency obligations including learning experiences, staffing expectations, longitudinal project timelines, and other residency responsibilities
  - Planned time off cannot interfere with completing any residency obligations
- **All time off requests MUST:**
  - Be submitted in writing **at least one to two weeks** prior to the requested time off
    - **NOTE:** if time off will interfere with resident's staffing rotation, requests must follow the Department of Pharmacy Schedule Policies (RX# 04-5)
  - Be approved by the RPh responsible for scheduling staffing shifts (when applicable)
  - Be approved by the associated learning experience preceptor(s)
  - Be approved by the residency program director
  - If time away from residency exceeds 37 days, extension of residency will be assessed on a case by case basis. Please refer to Extended Medical Leave/Personal Leave.

### **Sick Days**

- All sick days/unplanned absences will be reported to the Pharmacy Administrator on Call (AOC) as early as possible as outlined in the Department of Pharmacy policies (RX# 04-6) if the resident is staffing. If the resident is not staffing, notification may be sent directly to RPD and manager. After notifying AOC or RPD/Manager, they will notify their current learning experience preceptor(s).
- It is the responsibility of the resident to coordinate and make up any missed work associated with their absence during a learning experience. The resident should coordinate this with their preceptor(s) and RPD, if necessary.
- Per BIDMC policy (PM-07):
  - If an employee (resident) is absent for three consecutive work shifts without notifying their supervisor (RPD), they will be considered to have voluntarily resigned without notice
  - If an employee (resident) is absent for five consecutive shifts due to a medical or health issue and has notified their supervisor, they must report to Employee/Occupational Health Services (EOHS) for evaluation and clearance prior to returning to work

## Attendance

Throughout the duration of the year, residents are expected to be in attendance, on-site at the medical center during all scheduled learning experiences, service obligations, and other activities as determined by the program director and RAC. Any planned days off from residency and/or remote workdays must be approved by the residency program director AND the resident's preceptor (when applicable).

In general, it is expected that the resident:

- Attends each learning experience Monday through Friday at the hours set by the preceptor(s)
- **Does not miss more than five (5) days of any single learning experience**
  - If more than five (5) days are missed, the resident, preceptor(s), and program director must review a plan to ensure all learning objectives are met to ensure successful completion
- Contacts their preceptor(s) if they will be late to the medical center/learning experience OR if they will be absent for the day
  - All absences must also be communicated to the residency program director
  - It is the resident's responsibility to also inform relevant parties if their absence will result in them missing any scheduled meetings
  - It is the resident's responsibility to coordinate and make up any missed work

Unplanned absences including sick calls when scheduled to staff must be reported to the Pharmacy Administrator on call (92429) and/or manager of record as early as possible as outlined in the Department of Pharmacy Policy and Procedures.

The pharmacy resident will adhere to the expectations as outline in the following departmental and medical center policies:

- Policy #: 04-6 – Pharmacy Employee Dependability (Attendance and Tardiness) Expectations and Documentation of Hours Worked in My Time
- Policy #: 04-5 – Pharmacy Department Schedule Policies

Please see additional information regarding days off under **Program General Information**.

## Extended Medical Leave/Personal Leave

- **NOTE:** Residents may be eligible for the Massachusetts Paid Family and Medical Leave and/or the Family and Medical Leave Act (FMLA) if they meet specific criteria outlined in Employee Leaves of Absence (PM-11) policy.
- In the event of a serious medical or personal condition requiring extended leave, communication with the residency program director and human resources should be initiated as soon as possible to ensure that the resident is aware of their benefit status and they can determine what actions, if any, are available for continued benefits. BIDMC policies regarding Earned Sick Time (PM-37), Employee Paid Time Off (PM-03), and Employee Leaves of Absence (PM-11) can be found on the BIDMC employee portal within the BIDMC Policy Main Manual under Personnel Management – Human Resources

- Due to the twelve (12) month duration of the pharmacy residency program, an extended leave, for any reason, may threaten the resident's ability to complete the requirements of the program.
  - Every effort will be made to work with the resident to develop a plan to accomplish making up missed days; however, this may not be possible
  - **Extended leave greater than four (4) weeks** will necessitate an extension to the residency program in order to complete all program requirements detailed under **Successful Completion of the Pharmacy Residency Program at BIDMC**
    - Any decision on extension of the pharmacy residency program will be made after the resident petitions the Residency Program Director and Chief Pharmacy Officer (CPO)
    - The resident may receive a stipend during an approved extension of training subject to the availability of funding; however, this funding cannot be guaranteed. In the event a stipend is paid during the extension, the resident will be paid at the pay rate the resident received during their residency year
    - **All decisions related to extensions will be made on a case-by-based basis and cannot be guaranteed**
    - If the resident is unable to complete the formulated plan and fulfill the requirements of the program, as agreed upon by the resident, RPD, and CPO, they will not be awarded a certificate of completion

## Pharmacy Resident Duty Hours

It is recognized that providing residents with a sound didactic and clinical education must be carefully planned and balanced with concerns for patient safety and resident well-being. The BIDMC Pharmacy Residency program and Department of Pharmacy is structured so that didactic and clinical education have a priority in the allotment of residents' time and energy

All members of the Pharmacy Residency Program at BIDMC including program leadership, preceptors, and residents must be aware of and follow all standards outlined in the **ASHP Duty-Hour Requirements for Pharmacy Residencies** (<https://www.ashp.org/professional-development/residency-information/residency-program-resources>).

Duty hours will be recorded in the PharmAcademic system within each resident's individual profile. On the last day of each month, each resident will receive an email notification and a task to complete the ASHP standard Duty Hours from in PharmAcademic. The BIDMC Pharmacy Residency program will require each resident to attest to their knowledge and understanding of the above requirements and that they meet the above duty hour rules and all standards as outlined by ASHP.

### Definitions:

- **Duty Hours:** Duty hours are defined as all scheduled clinical and academic activities related to the pharmacy residency program. This includes inpatient and outpatient care; in-house call; administrative duties; and scheduled and assigned activities, such as conferences, committee meetings, and health fairs that are required to meet the goals and objectives of the residency program.

**Duty hours do not include:** reading, studying, and academic preparation time for presentations and journal clubs; travel time to and from conferences; and hours that are not scheduled by the residency program director or a preceptor.

- **Scheduled duty periods:** Assigned duties, regardless of setting, that are required to meet the educational goals and objectives of the residency program. These duty periods are usually assigned by the residency program director or preceptor and may encompass hours which may be within the normal workday, beyond the normal workday, or a combination of both.
- **Moonlighting:** Any voluntary, compensated, work performed outside the organization (external) or within the organization where the resident is in training (internal), or at any of its related participating sites. These are compensated hours beyond the resident's salary and are not part of the scheduled duty periods of the residency program.
- **Continuous Duty:** Assigned duty periods without breaks for strategic napping or resting to reduce fatigue or sleep deprivation.
- **Strategic napping:** Short sleep periods, taken as a component of fatigue management, which can mitigate the adverse effects of sleep loss.

### Maximum Hours of Work per Week and Duty-Free Times

- Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and all moonlighting
- Moonlight (internal or external) must not interfere with the ability of the resident to achieve the educational goals and objectives of the residency program
- Residents must have a minimum of one day in seven days free of duty (when averaged over four weeks). At-home call cannot be assigned on these duty free days
- Residents should have 10 hours free of duty between scheduled duty and MUST have, at a minimum, 8 hours between scheduled duty periods
- Continuous duty periods of residents should not exceed 16 hours. The maximum allowable duty assignment must not exceed 24 hours even with built in strategic napping or other strategies to reduce fatigue and sleep deprivation, with an additional period of up to two hours permitted for transitions of care or educational activities
- **At Home Call, Duty Hours:**
  - At home or other call hours are NOT included in the 80 hours a week duty hour calculation
  - The frequency of at home call must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks. No at-home call can occur on the day free of duty.
  - At home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident

- Program directors must have a method for evaluating the impact on residents of the at home or other call program to ensure there is not a negative effect on patient care or residents' learning due to sleep deprivation or serious fatigue

### **External Employment Policy (Moonlighting)**

Ensuring successful completion of the program for each resident at BIDMC must be the primary priority for the resident as well as the focus of each preceptor, administrator, and the residency program director. It must be understood by all members of the program that successful completion of the program and resident responsibilities may not correspond to a consistent day-to-day schedule and that, at times, additional hours of coverage may be necessary to complete program requirements. All patient care, service, and teaching requirements of the residency program take precedence over any additional employment.

While internal moonlighting at BIDMC will be allowed, additional employment external to BIDMC is strongly discouraged during the residency year.

Any resident choosing to moonlight internally must ensure they are meeting the following expectations:

- Any additional hours or shifts outside of the resident's service obligations **MUST** be approved by the residency program director prior to being scheduled
- All additional hours worked comply with the duty hour requirements outline above
- Moonlighting shifts does not exceed three (3) shifts in any six (6) week rolling period

## Learning Experiences

### Individualized Resident Learning Experience Schedule

For successful completion of a pharmacy resident program at BIDMC residents must complete the all of the required learning experiences, all required longitudinal learning experiences, and elective learning experiences dictated by the individual program. Residents will have a learning experience schedule tailored to their personal interests and residency year goals and individualization may include selection of elective learning experiences based on residents' entering interests, the order in which learning experiences are scheduled (ex. completing a specific rotation prior to PGY2 application and interviews, post-PGY2 goals, etc.), selection of specific clinical area required learning experiences are completed (ex. Pharmacy Practice completed in cardiac medicine). Adjustments will be made throughout the residency year as residents' interests, career goals, and/or career paths change.

Residents will further have the opportunity to individualize their learning experiences with the selection of their research/quality improvement project, medication use evaluation, continuing education, and other additional projects throughout the year. While residents will be encouraged to select projects from a diverse set of clinical and operational topics, they will have the ability to align their project work with their goals and interests.

In addition to a resident's goals and interests, individualization of the learning experience will align with resident performance and any self-identified or preceptor identified strengths and/or areas for improvement. The RPD will meet with each resident at least quarterly to review the resident's learning experience schedule and any opportunities or needs to make adjustments.

### General Resident Expectations – Learning Experiences

- **Communication and Evaluations:**
  - One week prior to learning experience start date:
    - Residents must complete their pre-rotation goals in PharmAcademic
      - Included in this assignment the resident must be prepared to include all currently known time away from the learning experience (ex. use of earned time, staffing shifts, MCPHS requirements, etc.)
      - Communicate with preceptor(s) to confirm learning experience expectations, schedule, and confirm start date/time and where to meet on the first day
  - Summative evaluations must be scheduled during the final week of the learning experience
    - Evaluations should NOT be submitted without verbal discussion of performance
  - ALL assigned evaluations in PharmAcademic must be completed and submitted before the end of the final scheduled day of the learning experience
- **Rotation attendance:**
  - Residents will be on site, at the medical center at the times indicated in each learning experience description unless otherwise directed by the preceptor
    - The resident will **contact the preceptor directly** if they will be absent or late to patient care for any reason

- Communication must occur BEFORE the time the resident is expected to arrive
- All remote learning experience work must be approved by the RPD

## Residency Program Learning Experiences

**NOTE:** a detailed description of all learning experiences listed below can be found in each program's respective PharmAcademic

**PGY1 Pharmacy Residency:** Schedule development will be based on required learning experiences, collection of incoming resident rotation selection preferences and initial post-PGY1 goals, and preceptor/rotation availability. Complete schedules will be reviewed with each incoming PGY1 resident during the Orientation & Training learning experience conducted during the first 4 weeks of the residency year. Residents will be scheduled to complete all listed required learning experiences below and will be able to select three (3) additional elective learning experiences that meet both the resident's goals and interests as well as serve to provide a well-rounded learning experience over the course of the residency year:

PGY1 Pharmacy Program – Learning Experiences		
Learning Experience	Duration	Required vs. Elective
Orientation & Training	4 weeks	Required
Pharmacy Practice	3 weeks	Required
Critical Care	5 weeks	Required
Infectious Diseases	5 weeks	Required
Internal Medicine	5 weeks	Required
APPE Preceptor – Internal Medicine	6 weeks	Required
Pharmacy Mgmt. & Leadership	4-5 weeks	Required
Research / Quality Improvement Project	48 weeks	Required
Medication Use Evaluation (MUE)	24 weeks	Required
Continuing Education (CE) Presentation	12 weeks	Required
Code Response: Longitudinal	42 weeks	Required
Clinical on Call	42 weeks	Required
PGY1 MCPHS Resident Teaching Certificate Program	36 weeks	Required
Pharmacy Service (Staffing) Longitudinal	42 weeks	Required
Ambulatory Care – Cardiology	4-5 weeks	Elective
Ambulatory Care – Infectious Diseases / OPAT	4-5 weeks	Elective
Ambulatory Care – Hematology/Oncology	4-5 weeks	Elective
Ambulatory Care – Solid Organ Transplant	4-5 weeks	Elective
Antimicrobial Stewardship: Advanced Elective	4-5 weeks	Elective
Cardiac Intensive Care Unit (CCU)	4-5 weeks	Elective
Emergency Medicine	4-5 weeks	Elective
Hematology/Stem Cell Transplant (BMT)	4-5 weeks	Elective
Hepatology	4-5 weeks	Elective

Neonatal Intensive Care	4-5 weeks	Elective
Neuroscience Intensive Care Unit (NSICU)	4-5 weeks	Elective
Oncology	4-5 weeks	Elective
Oncology Infusion	4-5 weeks	Elective
Solid Organ Transplant	4-5 weeks	Elective
Surgical Intensive Care (SICU)	4-5 weeks	Elective
Trauma Surgical Intensive Care (TSICU)	4-5 weeks	Elective

## PGY2 Ambulatory Care Pharmacy Residency:

PGY2 Ambulatory Care Pharmacy Program – Learning Experiences		
Learning Experience	Duration	Required vs. Elective
Orientation (duration based on early commit vs. external match)	2- 4 weeks	Required
Primary Care	6 weeks	Required
Cardiometabolic Clinic	6 weeks	Required
Cardiology	6 weeks	Required
Pulmonary/Allergy	6 weeks	Required
HIV (beginning 2024-25 residency year)	6 weeks	Required
Anticoagulation Management Service	6 weeks	Elective
ID/OPAT	4 weeks	Elective
Hematology/Oncology	6 weeks	Elective
Community Health Primary Care	6 weeks	Elective
Pain/Palliative Care	6 weeks	Elective
Specialty Pharmacy	6 weeks	Elective
Population Health (BILHPN)	6 weeks	Elective
Management/Administration	Longitudinal (once monthly meeting)	Required
Teaching – MCPHS University	Longitudinal (half day commitment per week)	Required
Ambulatory clinic staffing	Longitudinal (half day commitment per week)	Required

## PGY2 Critical Care Pharmacy Residency:

PGY2 Critical Care Pharmacy Program – Learning Experiences		
Learning Experience	Duration	Required vs. Elective
Orientation (duration based on early commit vs. external match)	2-4 weeks	Required
Cardiovascular Surgical Intensive Care	3 weeks	Required
Cardiac Intensive Care Unit	4 weeks	Required
Medical Intensive Care Unit	3-4 weeks	Required
Emergency Medicine	4 weeks	Required
Medical Oncology Intensive Care	3-4 weeks	Required
Neurological Intensive Care	4 weeks	Required
Surgical Intensive Care	4 weeks	Required
Trauma Intensive Care	4 weeks	Required
Advanced Medical Intensive Care	4 weeks	Required
Evening Intensive Care	3-4 weeks	Required
Teaching: Group Case Facilitation weekly	12 weeks	Required
Antimicrobial Stewardship	3-4 weeks	Elective

Infectious Disease Consult Service	3-4 weeks	Elective
Hematology/Oncology (Inpatient)	3-4 weeks	Elective
Solid Organ Transplant	3-4 weeks	Elective
Repeat ED/ICU rotation	3-4 weeks	Elective

## PGY2 Infectious Diseases Pharmacy Residency:

<b>PGY2 Infectious Diseases Pharmacy Program – Learning Experiences</b>		
<b>Learning Experience</b>	<b>Duration</b>	<b>Required vs. Elective</b>
Orientation (duration based on early commit vs. external match)	2-4 weeks	Required
Antimicrobial Stewardship	8 weeks	Required
Infectious Diseases West Consult (Gen Med/Surg)	8 weeks	Required
Infectious Diseases East Consult (Immunocompromised)	8 weeks	Required
HIV/HCV Outpatient Clinic	4 weeks	Required
Infection Control/Health Care Quality	2 weeks	Required
Microbiology	2 weeks	Required
Teaching: Group Case Facilitation Weekly	12 weeks	Required
Academia: Teaching Assistant Anti-infectives	16 weeks	Required
Outpatient Parenteral Antimicrobial Therapy	4 weeks	Required
Pharmacy /Stewardship Service <ul style="list-style-type: none"> <li>▪ Pre-prescriptive approval pager &amp; 30 decentral shifts</li> </ul>	Longitudinal	Required
Interdisciplinary Management and Communication <ul style="list-style-type: none"> <li>▪ Participation in Monthly P&amp;T Committee meetings</li> <li>▪ Antibiotic Subcommittee</li> </ul>	Longitudinal	Required
Pharmacy Administration <ul style="list-style-type: none"> <li>▪ Formulary</li> <li>▪ Research Project Management</li> </ul>	Longitudinal	Required
Drug Information / Communication <ul style="list-style-type: none"> <li>▪ Drug Information Questions</li> <li>▪ Journal Club Presentations</li> <li>▪ ASHP Vizient MUE Poster Presentation</li> <li>▪ Continuing Education Presentations (1)</li> </ul>	Longitudinal	Required
Clinical on call	Longitudinal	Required
Medication Safety	Longitudinal	Required
Emergency Medicine	4 weeks	Elective
HIV Pre-Exposure Prophylaxis Clinic	4 weeks	Elective
Critical Care	4 weeks	Elective
Hematology/Oncology (Inpatient)	4 weeks	Elective
Solid Organ Transplant	4 weeks	Elective
Network Stewardship	4 weeks	Elective
Immunocompromised Host Hybrid Inpatient-Clinic	4 weeks	Elective

## PGY2 Solid Organ Transplant Pharmacy Residency:

PGY2 Solid Organ Transplant Pharmacy Program – Learning Experiences		
Learning Experience	Duration	Required vs. Elective
Orientation (duration based on early commit vs. external match)	2-4 weeks	Required
Acute Care – Kidney/Pancreas Transplant	6 weeks	Required
Acute Care – Liver Transplant	6 weeks	Required
Ambulatory Care – Kidney/Liver Transplant	6 weeks	Required
Immunocompromised Infectious Disease	6 weeks	Required
Pharmacy Student Experiential Education	6 weeks	Required
Transplant Practice Leadership <ul style="list-style-type: none"> <li>▪ Formulary/Leadership/Project Management</li> </ul>	52 weeks	Required
Pharmacy Practice (staffing) <ul style="list-style-type: none"> <li>▪ Staffing: 30 weekend shifts per year</li> <li>▪ Code Response Training/Participation (if needed)</li> <li>▪ Clinical on-call: ~every 9 days (on call for 1 day at a time)</li> </ul>	52 weeks	Required
MCPHS Univ – Teaching/Group Seminar Facilitation <ul style="list-style-type: none"> <li>▪ Teaching assistant for Fall semester</li> <li>▪ Participate as a preceptor for 1 MCPHS University student</li> <li>▪ Transplant lecture to pharmacy students</li> </ul>	52 weeks	Required
Residency Research Projects <ul style="list-style-type: none"> <li>▪ MUE</li> <li>▪ Residency Research Project</li> <li>▪ P&amp;T/Clinical Division Presentations</li> </ul>	52 weeks	Required
Ambulatory Care <ul style="list-style-type: none"> <li>▪ Kidney MDC clinic (Monday PM)                             <ul style="list-style-type: none"> <li>○ July – December</li> </ul> </li> <li>▪ Liver MDC clinic (Monday AM)                             <ul style="list-style-type: none"> <li>○ January - June</li> </ul> </li> </ul>	52 weeks	Required
Heart Failure/VAD – Heart Transplant	4 weeks	Elective
Surgical Critical Care	4 weeks	Elective
Bone Marrow/Stem Cell Transplant	4 weeks	Elective
Lung Transplant	4 weeks	Elective

## Common Longitudinal Learning Experiences

### Service (Staffing)

Each resident is required to complete a pharmacy service component of the residency program. Often referred to as "staffing," the service component of the residency is crucial to the development of professional practice and distribution skills so as to provide safe and effective pharmaceutical care. Residents will gain insight into the operations, policies and procedures and have the opportunity to provide patient care services within their practice site.

After successful completion of departmental orientation and training (duration and site(s) of training dependent on individual program and each resident's progression through training) residents will be expected to serve as an independent clinical pharmacist covering various practice sites throughout the residency year. The service expectations for each program are:

- **PGY1 Pharmacy:** (shifts split between central operations and decentral clinical sites)
  - One evening shift per week
  - Every third weekend
- **PGY2 Ambulatory Care:**
  - Once a week in an ambulatory care clinic
- **PGY2 Critical Care:**
  - Critical Care and/or Emergency Medicine: every third weekend
- **PGY2 Infectious Diseases:**
  - General Medicine: every third weekend
  - Pre-prescriptive pager: one day (8 hours) per week (Monday-Friday)
- **PGY2 Solid Organ Transplant:**
  - Transplant Medicine & Surgery: every third weekend

### Clinical on Call

Acute care pharmacy residents (i.e. not PGY2 Ambulatory Care residents) will participate in an at home on call service. Residents will apply their clinical knowledge, understanding of institutional and regulatory policies, and critical thinking skills gained throughout concentrated and longitudinal learning experiences to serve as a 24-hour clinical resource to the pharmacy & medical staff.

#### The goals of the clinical on call experience include but are not limited to:

- Confidently discuss and answer complex clinical questions
- Efficiently gather and analyze literature to support recommendations
- Effectively review, interpret, and apply hospital and department policy and guidelines
- Communicate effectively with primary teams, specialty consultants, and pharmacists to develop a treatment plan that incorporates best practice, medical necessity and patient specific factors
- Recognize patterns or frequent questions/requests and identify the need to develop new clinical practice guidelines, formulary evaluations, etc.
- Document recommendations and resources for internal pharmacy tracking and to provide feedback to clinical division

Following orientation, primary coverage of the clinical on call pager assignment will rotate through all inpatient acute care PGY1 and PGY2 pharmacy residents and residents will have a Clinical Pharmacy Manager or Clinical Pharmacist Specialist who serves as back up at all times throughout the year.

#### **Schedule:**

- The on-call schedule will be managed by the Chief Pharmacy Resident
- Residents rotate the pager daily at 8am
- Resident on call hours:
  - Weekdays (Monday-Friday): 4pm-8am
  - Weekends (Saturday, Sunday) and holidays: 8am-8am
- Residents may trade shifts. Shifts trades must be documented in the schedule.
- The schedule is located in the shared drive (S:\Pharmacy\Clinical On Call\Clinical On Call Schedule)

**NOTE:** pharmacy residents will not provide primary pager coverage during other assigned residency learning experiences (ex. service shifts, teaching certificate activities, etc.)

#### **When scheduled to cover the COC pager:**

- Residents will be ready to receive pages during their assigned coverage; pager coverage may be changed by the outgoing resident/pharmacist or the incoming resident/pharmacist
- The resident **MUST** ensure they have their pager on their person with a setting that will ensure they do not miss pages (ex. sound notification on overnight)
  - Residents using their mobile phone to receive pages must ensure their phone settings do not increase the likelihood of missing pages, particularly during sleeping hours

Additional details outlining COC expectations are available within the COC guideline document that will be provided and reviewed during orientation

### **Resident Report**

Resident report is a weekly pharmacy conference meant to enhance the resident's clinical knowledge and give the resident an opportunity to present and/or facilitate discussion in a large group setting. All members of the pharmacy department will be invited to each resident report session and residents will be expected to provide presentations that promotes audience engagement and discussion on the respective topic.

It is expected that **all residents attend all scheduled resident report presentations** being delivered by any PGY1 or PGY2 resident. All residents will be required to present at least one (1) resident report presentation throughout the year as determined by their individual program.

### **Continuing Education (CE) Program**

Each resident will present at least one (1) formal CE presentation during the residency year. Several residency goals will be addressed within this residency requirement. Upon successful completion of this residency requirement, the resident will demonstrate:

- Critical evaluation of the literature pertaining to the presentation topic
- The provision of CE programs for pharmacists and other health care professionals

- Presentation, teaching and communication skills
- Skill in responding to audience questions and comments
- Familiarization with different audiovisual equipment and techniques

**CE Format**

- The time, location, and title of the resident CE program will be determined no less than 60 days prior to the assigned presentation date.
- The length of the resident CE program will be limited to one hour, with at least 10 minutes of this time reserved for questions and/or comments from the audience.
- Handouts should be prepared in advance and reviewed with the CE preceptor(s)

**Approval for CE credit:**

- The resident will coordinate with the Pharmacy Administration Team to secure CE credits from available accrediting bodies
- At least 45 days prior to the presentation, the resident should submit the following CE program information to the accrediting body: Presentation title; Educational Objectives, Date and time of presentation; location of presentation; resident’s and preceptor’s curriculum vitae
- A sign-in sheet is required to document attendance of participants seeking CE credit for the program (found on shared drive, residency, forms)

**At the conclusion of a CE program, the resident must:**

1. Review the audience evaluation forms with CE preceptor
2. Deliver the audience evaluation forms to the CE coordinator
3. Return sign-in sheets to the CE coordinator, so that attendees receive CE credit

**General CE Timeline:**

Continuing Education Timeline	
90 days before presentation	Submit CE topic selection to RPD for approval
70 days before presentation	Submit CE topic outline to advisor(s)
60 days before presentation	Submit initial CE application to advisor(s), RPD
<b>45 days before presentation</b>	<b>Submit initial CE application to UNE</b>
6 weeks before presentation	First draft of presentation slides to advisor(s)
3 weeks before presentation	Second draft of presentation slides to advisor(s)
At least 1 week before presentation	Send Email & Outlook appointment to Department of Pharmacy
1 week before presentation	Final practice with advisor(s) and RPD
Date of Presentation	Deliver CE to Department of Pharmacy

## Medication Use Evaluation and Research/Quality Improvement Projects

Completing a medication use evaluation (MUE) and research/quality improvement (QI) projects provides the resident an opportunity to contribute to departmental and organizational goals by identifying and evaluating processes and/or quality improvement initiatives.

- An MUE focuses on evaluating and improving medication-use processes with the goal of optimal patient outcomes that may be applied to a medication or therapeutic class, disease state or condition, a medication-use process (prescribing, preparing and dispensing, administering, and monitoring, or specific outcomes).
- Research/QI projects allows the resident to develop a longitudinal project seeking to optimize medication therapy and improve patient care through either investigating gaps in medical literature, improving institutional care/processes in alignment with departmental and/or institutional goals and initiatives, or improving operational processes contributing to patient care. This project will allow the resident to develop a research question and project protocol related to clinical and operational medication-related questions.

**Project Selection:** during the first month of the residency, a list of potential MUEs and research/QI projects that have been developed by departmental leadership and clinical staff that are in line with departmental goals and priorities will be provided to the residents. Residents will be asked to rank a number of projects that will be submitted to their RPD. After review of the rankings, project assignment will be communicated to the resident and their respective project team.

### Expectations:

While working with an experienced project team that is composed of multiple pharmacists and may be interdisciplinary, the resident is the primary investigator (PI) for their respective project. It will be expected the resident lead the project, set project timelines/deadlines, and communicate with the project team concerning project progression, schedule or timeline changes, barriers to project success, etc.

## Resident Evaluation Strategy

An essential component of developing the skills of a resident and continuous improvement to the residency program is frequent two-way feedback between residents and preceptors. The goal of such discussion and interaction is to:

- Discuss the resident's self-assessment/evaluation of their performance on the learning objectives and on their stated goals for the learning experience
- Discuss the resident's achievements in terms of learning objectives established for the rotation
- Provide feedback that may assist the resident with future rotations or practice
- Provide feedback to the preceptors for continuous improvement of preceptor skills, that may strengthen mentoring during future learning experiences
- Provide feedback to the coordinator, in order to improve the residency program, and coordinator skills.

The preceptors, program director, and residents will frequently provide feedback to one another during individual learning experiences, resident activities, and in general throughout the residency program.

Specific program and rotation feedback may be given via different formats depending upon the learning experience. This will include both oral and written feedback and evaluation.

### Evaluations will occur as described below:

#### 1. Resident Self-Evaluation:

Self-assessment and evaluation is an important component of the learning experience for the resident. The resident may be assigned pre-learning experience goals to complete in PharmAcademic prior to the start of the learning experience. It is the expectation that these goals will provide a focus for self-directed learning for the resident and will assist the preceptor in preparing an individualized plan for the resident. At the conclusion of each learning experience, the resident will complete a summative self-evaluation of their progress and attainment in meeting the goals and objectives of that rotation in PharmAcademic. Quarterly self-evaluations by the resident should be submitted to the Resident Advisor one week prior to the scheduled review date with the Advisor.

#### 2. Learning Experience Summative Evaluations:

At the end of each learning experience, in addition to the resident's summative self-evaluation of their performance during that learning experience, residents are required to complete a preceptor and learning experience evaluation in PharmAcademic. Preceptors will utilize PharmAcademic to complete an independent criteria based, summative assessment of the resident's performance for each of the respective rotation-selected educational goals and objectives assigned to the learning experience. The resident and preceptor will meet to review and discuss these evaluations together.

#### 3. Criteria Based Assessments:

Learning experience preceptors will provide periodic opportunities for the resident to practice and document criteria based, formative self-evaluation of aspects of their routine performance and to document criteria-based, summative self-assessments (snapshots) of achievement of

the educational goals and objectives assigned to the learning experience. Feedback and evaluation of such selected activities will be conducted throughout the residency for both learning experiences and longitudinal activities. These will include but are not limited to:

- Case Discussion (Primary preceptor during that experience)
- Communication (Primary preceptor during that experience/Advisor/RPD)
- Intervention Documentation (Primary preceptor during that experience/Advisor)
- Problem solving (Primary preceptor during that experience/Advisor)
- Researched DI Questions (Primary preceptor during that experience)
- Journal Club (Primary preceptor during that experience/pharmacy staff /students)
- Other project assignments\_(evaluation preceptor will be assigned)

#### 4. Quarterly Evaluation:

These are longitudinal evaluations providing written evaluation of the resident's progress within the residency program. The quarterly evaluation will address progress towards the resident's individual residency goals and objectives as well as the required and longitudinal activities of the program. The resident will complete a quarterly self-assessment and submit this to their Resident Advisor one week prior to the scheduled Quarterly Evaluation meeting time with the advisor. Following the review and discussion of the quarterly evaluation between the resident and their Advisor, a meeting with the RPD will be scheduled to discuss the resident's overall progress and to complete the quarterly update of the resident's customized plan.

#### 5. Residency Advisory Committee Assessments:

Timely feedback on specific topics/issues is provided during each RAC meeting or may be provided to resident by RPD or advisor following RAC meetings. Throughout the residency year, the resident will seek feedback on various assignments, presentations, drug information questions, project work and other activities. Assessment by committee members will be provided in a number of formats, each contributing to the progress of the resident in achieving their residency goals.

#### 6. Custom Evaluations:

Some residency experiences will be evaluated utilizing custom evaluations that are not in PharmAcademic. Resident's should maintain a copy of each evaluation and these should be filed by the resident in their Residency Portfolio

### Evaluation Scale:

**5- Major Strength: [Excellent]:** Resident consistently demonstrates high level of performance for evaluated skill, ability, initiative, or productivity. All associated assignments/responsibilities are completed above the level of expectation

**4- Solid Performance: [Very Good]:** Resident demonstrates high level of performance for evaluated skill, ability, initiative, or productivity; exceeding requirements in some areas, but not consistently or not without exception. Resident is capable of independent performance the majority of the time with only minimal preceptor intervention.

**3- Developing: [Satisfactory]** Resident displays an understanding of evaluated skill, ability, initiative, or productivity, however he/she requires additional work to develop and sustain an effective level of performance for the evaluated skill, ability, initiative, or productivity. Resident needs occasional preceptor intervention.

**2- Needs Improvement:** Resident displays inconsistency in the performance of the evaluated skill, ability, initiative, or productivity review and performance frequently falls below acceptable levels. Frequent preceptor intervention is needed and development is required to meet expected performance level.

**1- Unsatisfactory:** Resident's performance is consistently below expectations, and/or he/she has failed to make reasonable progress toward agreed upon expectations and goals. Significant improvement is needed in most aspects of their performance. (A plan to improve performance with specified timelines must be outlined and monitored for improvement.)

### **Achieved for the Residency (ACHR)**

Achieved for Residency (ACH-R) may only be designated by the program director based upon review and assessment of each individual resident's performance from documented feedback and summative evaluations in PharmAcademic. Typically, this will be considered when a resident has scored two or more scores of  $\geq 4$  for that objective. Evidence of consistent performance (i.e. progression from a score of 2  $\rightarrow$  3  $\rightarrow$  4 and a lack of regression in scores) will also be taken into account when evaluating whether a resident has achieved ACH-R for a particular goal or objective. In addition to completion of  $>80\%$  of the ASHP Residency Program Residency Learning System Outcomes, Goals and Objectives all residents must complete the required activities outlined above.

## Disciplinary Action Policy and Procedure:

Disciplinary Actions within the BIDMC Pharmacy Residency Program will align with the BIDMC Corrective Action Policy (PM-04) and the BIDMC GME Policy for Remediation and Discipline (GME-10).

In the event of the identification of need for disciplinary action of a resident or if a resident fails to make satisfactory advancement in any aspect of the residency program, the following action steps shall be taken:

### Grounds for Dismissal – includes but is not limited to:

- Failure to progress through performance improvement plan
- Failure to follow policies and procedures of the BIDMC Department of Pharmacy Services, or the specific residency program
- Failure to present oneself in a professional manner

### Resident Failure to Progress / Remediation Policy

All employees of BIDMC and members of the Department of Pharmacy, including pharmacy residents, are expected to observe all institutional policies and to perform their roles in an efficient and productive manner. Additionally, pharmacy residents are expected to make satisfactory progress on all learning objectives for their respective residency program as dictated by the program manual, RPD, and RAC.

A remediation plan may be initiated by the resident, the RPD, a longitudinal advisor, or a preceptor for the following reasons:

1. *Failure to obtain pharmacist licensure in the state of Massachusetts within 120 days of residency start*
2. *Resident time away from the residency program exceeds (or is anticipated to exceed) 37 days*
3. Failure to follow policies and procedures of the BIDMC Department of Pharmacy Services or the Residency Program including, but not limited to:
  - BIDMC Code of Conduct: Integrity at Work
  - PM-07: Employee Dependability (Attendance and Tardiness) Expectations
4. More than two instances of tardiness (as defined by department policy 04-6) to a learning experience and/or staffing shift
5. **Summative Evaluations:** resident receives evaluation of “Unsatisfactory” or “Needs Improvement” in:
  - Three or more learning objectives in a single summative evaluation
  - The same learning objective in two consecutive summative evaluations
6. **Following project timelines:**
  - Longitudinal projects (ex. MUE, QI/Research, CE):
    - Any missed “external” deadline (ex. abstract submission deadline for ASHP Midyear)
    - Two or more consecutive missed deadlines (any deadline as determined by program and/or project advisors)
  - Two or more missed assignment deadlines on any learning experience

A remediation plan may also be implemented for a resident at the discretion of the RPD to provide additional needed support and structure at any time.

In the event a need for a remediation plan for a resident is communicated to, or identified by, the RPD the following steps shall be taken:

1. The RPD will provide written evidence to the resident of their performance and how it is misaligned with expectations as outlined by the residency program manual and/or institutional policies. **This initial notification will serve as a first warning** towards dismissal from the residency program.
2. The resident will review the documented concerns and feedback and will initiate completion of a written Remediation Plan to focus on the specific performance (and learning objectives, if applicable) of concern. The Remediation Plan must include goals to correct the identified areas of concern, the steps to be taken to demonstrate success of the goals, and a proposed timeline for demonstration of success.
  - It is expected that the resident submit this written plan to the RPD within one (1) week of receipt of the documented concerns and feedback
3. The resident will set up a meeting with themselves, their RPD, their longitudinal advisor, and preceptor(s) if applicable to be held within one (1) week of submitting their remediation plan. The meeting will serve as an opportunity for all parties, including the resident, to agree upon the remediation plan and timeline.
4. Upon finalization of a remediation plan the RPD and resident will meet at regularly scheduled, agreed upon intervals depending on the duration of the agreed upon timeline(s) to discuss the resident's progress. Meetings will be **no less frequent** than every four (4) weeks.
5. Failure to demonstrate progress on the agreed upon Remediation Plan in the agreed upon timeline will serve as a **second warning** towards dismissal from the residency program.
6. If, at any time during the remediation process, the RPD, any advisor, or preceptor determines that the resident may not complete the residency program in the designated timeframe, a plan to review and revise the remediation plan and discuss potential extension of the residency program will occur with resident, longitudinal advisor, RPD, and relevant director.

## Pharmacy Resident Remediation / Performance Improvement Plan

<b>Resident:</b>	
<b>RPD:</b>	
<b>Longitudinal Advisor:</b>	
<b>Preceptor(s) (if applicable):</b>	

The purpose of the remediation plan is to define and address specific misconduct by a resident, deficiencies in resident progress towards successful completion of the residency program, or to address insufficient performance by the resident and serve to provide a reasonable plan for the resident to be able to improve performance. Residents will continue to be responsible for all institutional and program policies and learning experience objectives; however, the item(s) requiring remediation have been identified as area(s) where significant improvement is needed.

Specific Area(s) of Concern		
Item Requiring Remediation	Relevant Learning Objective(s)	Observed Performance

The resident must develop a specific, comprehensive, measurable plan addressing the items identified above to ensure they can make satisfactory progress towards demonstrating improvement and/or progress towards completion of residency program requirements. The resident must also consider their other existing learning experience requirements

**This plan MUST be submitted to your RPD and longitudinal advisor within seven (7) calendar days of receipt from the RPD.** In addition, the resident must schedule a meeting with the RPD, their longitudinal advisor, and any relevant preceptors to be held within seven (7) days of their submission of this remediation plan to RPD and longitudinal advisor.

<b>Item Requiring Remediation:</b>	
<b>Remediation Plan:</b>	
<b>Resident Responsibility</b>	<b>RPD/Preceptor Responsibility</b>
<b>Criteria to Demonstrate Success:</b>	

<b>Item Requiring Remediation:</b>
<b>Remediation Plan:</b>

Resident Responsibility	RPD/Preceptor Responsibility
<b>Criteria to Demonstrate Success:</b>	

<b>Item Requiring Remediation:</b>	
<b>Remediation Plan:</b>	
Resident Responsibility	RPD/Preceptor Responsibility
<b>Criteria to Demonstrate Success:</b>	

Remediation Plan Progress Notes			
Date of Follow Up			RPD, Resident Initial
<b>Remediation Item:</b>	Satisfactory Progress: <input type="checkbox"/> Yes <input type="checkbox"/> No RPD Comments: Resident Comments:	Satisfactory Progress: <input type="checkbox"/> Yes <input type="checkbox"/> No RPD Comments: Resident Comments:	
<b>Remediation Item:</b>	Satisfactory Progress: <input type="checkbox"/> Yes <input type="checkbox"/> No RPD Comments: Resident Comments:	Satisfactory Progress: <input type="checkbox"/> Yes <input type="checkbox"/> No RPD Comments: Resident Comments:	
<b>Remediation Item:</b>	Satisfactory Progress: <input type="checkbox"/> Yes <input type="checkbox"/> No RPD Comments: Resident Comments:	Satisfactory Progress: <input type="checkbox"/> Yes <input type="checkbox"/> No RPD Comments: Resident Comments:	

I am agree to and understand the Remediation Plan, including my role and expectations, as described above:

\_\_\_\_\_  
Resident Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
RPD Signature

\_\_\_\_\_  
Date

Longitudinal Advisor Signature

Date

\_\_\_\_\_  
Preceptor Signature (if applicable)

\_\_\_\_\_  
Date

## PGY1 Pharmacy Program Appendix

### PGY1 RAC Subcommittees

In addition to the RPD, RPC, and RAC described above the PGY1 program will utilize the below subcommittees to further dedicate efforts to program leadership, structure, and continuous improvement. The subcommittees will have a chair, selected by the RPD, who will report subcommittee activities at each RAC meeting. The names, purpose, membership, and general roles of the subcommittees are:

#### Preceptor Development Subcommittee

- **Purpose:** focus on development of new preceptors/preceptor-in-training and facilitating ongoing preceptor and professional development for all residency preceptors. Activities will also align to meet/maintain ASHP PGY1 standards related to evaluation and development of preceptors
- **Members:** PGY1 Program Coordinator, preceptors, one PGY1 resident
- **General Role(s):**
  - Coordinate and/or deliver quarterly preceptor development workshops
  - Develop and maintain a detailed process for new preceptor training
  - Serve as (or assign) mentor to new preceptors and/or preceptors-in-training

#### Recruitment Subcommittee

- **Purpose:** oversees PGY1 recruitment process by planning, coordinating, and participating in all residency recruitment activities
- **Members:** PGY1 Program Coordinator, preceptors, one PGY1 resident
- **General Role(s):**
  - Assist in coordinating and planning virtual recruitment activities (ex. PGY1 Virtual Open House, New England Showcase, ACCP Residency Showcase, etc.)
  - Review recruitment activities that promote diversity, equity, and inclusion
  - Annual review & update of candidate application rubric and candidate interview rubrics
  - Participate in candidate selection (ex. application review, interviews)

#### Research Subcommittee

- **Purpose:** develops and oversees a structured process for residents to complete MUE and research/quality improvement projects including providing support and guidance to preceptors and residents throughout the process
- **Members:** PGY1 Program Director, preceptors, one PGY1 resident
- **General Role(s):**
  - Solicit and vet project ideas from pharmacy preceptors annually
  - Set and discuss longitudinal expectations and timelines

- Facilitate ongoing/longitudinal research professional development activities

### Wellness Subcommittee

- **Purpose:** focuses on resident and preceptor well being and resiliency and providing support for holistic development of the residency class
- **Members:** PGY1 Program Director, preceptors, one PGY1 resident, Chief Pharmacy Resident (ad hoc)
- **General Role(s):**
  - Plan/coordinate social outings/events for residents with and/or without preceptors
  - Facilitate a resident resilience and wellness curriculum for all pharmacy residents
  - Identify and promote external resources for resident well-being and resilience

### PGY1 RAC Longitudinal Advisor

Mentoring and advising are key elements of the BIDMC PGY1 Pharmacy Residency Program. To provide the resident with the opportunity for individualized mentoring and advising, RAC will work with each incoming resident to coordinate the selection of an individual Resident Advisor for the academic year. The principle intent of the Resident Advisor is to support the resident in all matters contributing to the successful completion of the PGY1 residency program.

#### Expectations of the Advisor will include:

- Facilitate regular meetings with PGY1 resident – must meet **at least** monthly to track and discuss:
  - Resident reflection on self-identified strengths and opportunities for improvement
  - Current rotation performance (including review of most recent summative evaluation and discussion of objectives rated as “Need Improvement” and “Unsatisfactory”)
  - Progress and adherence to project milestones with longitudinal projects (ex. MUE, CE, research, drug information questions)
    - Any external project milestones (ex. abstract submission to ASHP or Eastern States) **MUST** be escalated to the PGY1 RPD by the RAC Advisor
- Attend initial project meeting with resident and project advisors
- Submit monthly “RAC Updates Form” (**see appendix B**) to PGY1 Program Coordinator no later than noon on the Friday before each RAC meeting
- Advocate for PGY1 resident at RAC meetings and when necessary to mediate potential conflicts between resident and residency faculty (preceptors, project advisors, RPD, program coordinator)
- Provide advice and guidance on the following:
  - Longitudinal project management
  - Time management strategies
  - Professional development and interpersonal relationships
  - Conflict management and resolution
  - Career planning and opportunities post-residency

- Meet quarterly with resident & RPD to discuss and complete resident's quarterly assessments

**Expectations of the Resident will include:**

- Scheduling all meetings with their advisor (at least monthly) and quarterly meetings with their advisor and RPD
  - Communicate with advisor on any scheduling conflicts or meeting time changes
- Include RAC advisor in initial meetings with preceptors/advisors on all longitudinal projects (MUE, research, and CE)
  - All communication regarding project timelines should include the RAC advisor (minimum: when initial timelines and expectations are set, any changes to the timeline)
- Come to advisor meetings with updates on longitudinal projects including specific updates on project timelines/milestones and having performed self-reflection on performance

Residents will have the opportunity to work with the RPD and program coordinator to select their Resident Advisors from a list of eligible preceptors to ensure a match of career goals and interests (when possible). Residents will submit a rank choice list and advisors will be assigned by the RPD and program coordinator.

**PGY1 Longitudinal Advisor – RAC Updates Form:**

**Resident:**

**Advisor:**

**Longitudinal Activities – milestone discussion:** (may be time of year specific, i.e. MUE not discussed once completed)

**MUE:**

Next milestone:

Potential/actual barriers to timeline:

**Longitudinal Research/QI project:**

Next milestone:

Potential/actual barriers to timeline:

**CE:**

Next milestone:

Potential/actual barriers to timeline:

**Medication Safety:**

Next milestone:

Potential/actual barriers to timeline:

**Rotation Performance:**

Current and next rotation:

Review of most recent rotation final evaluation:

(focus on discussion of any “Unsatisfactory” or “Needs Improvement”)

**Resident Self-Reflection:**

Self-identified strengths:

Self-identified opportunities for improvement (include strategies for improvement)

**Resident Feedback for RAC:**

## PGY1 Longitudinal Projects

### Medication Use Evaluation

#### Expectations:

While working with an experienced project team that is composed of multiple pharmacists and may be interdisciplinary, the resident is the primary investigator (PI) for their respective project. It will be expected the resident lead the project, set project timelines/deadlines, and communicate with the project team concerning project progression, schedule or timeline changes, barriers to project success, etc.

#### Successful completion of the MUE will include the following milestones:

- External presentation of results (ex. ASHP Midyear Clinical Meeting poster)
- Internal presentation of results (ex. Pharmacy & Therapeutics committee and/or other appropriate subcommittee/content expert)
- Identification of institutional improvement steps including, but not limited to, development or revision of BIDMC policies/procedures, clinical guideline, online medical record, order entry, clinical workflow, etc.

#### General Timeline:

Medication Use Evaluation (MUE) Timeline	
Week 1 of Residency	List of potential MUEs given to PGY1 residents
2 <sup>nd</sup> week of July	Resident MUE rankings due to Chair of RAC Research Subcommittee and RPD
3 <sup>rd</sup> week of July	MUE project assignment announced
	Schedule initial meeting with project team
1 <sup>st</sup> week of August	Completed project proposal, signed by project advisor(s) due to Chair of Research Subcommittee and RPD
3 <sup>rd</sup> week of August	Data collection sheet due to advisors
End of August	iRex/IRB submission due
September 17 <sup>th</sup>	Draft ASHP Abstract due to advisors
<b>October 1<sup>st</sup></b>	<b>ASHP Abstract Submission due by 11:59pm*</b>
November 1 <sup>st</sup>	Deadline for completion of data collection
Nov 11 <sup>th</sup>	Draft of ASHP Poster to advisors
<b>Nov 17<sup>th</sup></b>	<b>Final ASHP Poster Due*</b>
Nov 22 <sup>nd</sup> thru Dec 3 <sup>rd</sup>	Practice poster presentation with project team, RPD
<b>First Week of Dec</b>	<b>ASHP Midyear*</b>
Dec 13 <sup>th</sup> thru 31 <sup>st</sup>	Schedule MUE results presentation at P&T or appropriate committee
February 28 <sup>th</sup>	Deadline for committee presentation (P&T or other as determined by project team)

\***External deadlines** – any barriers to meeting **MUST** be communicated to RPD



## PGY1 Resident MUE Approval Form

**Resident:**

**Medication, therapeutic class, and/or medication-use process to be reviewed:**

Project Team Members: Name	Title/Position	Role/(s)

*Roles that team members may fulfill include but are not limited to: oversee data collection, oversee data analysis, subject matter expert who provides recommendations on the direction/design of research project, assistance with manuscript writing.*

- I. **Background and significance:** *(Why is this project being completed? Ex. evaluation of formulary addition, adherence to institutional practice/restrictions, optimizing patient safety, assessment of performance on regulatory/accreditation standards)*
  
- II. **Patient population:**
  - What is the anticipated sample size to be reviewed:
  - How will patients be identified (i.e. how will you obtain a patient list):
  
- III. **Data to be collected:** *(list data points necessary to be collected to complete this MUE)*
  - Include, for each data point, how data will be obtained
  
- IV. **Impact:** *(What potential changes are anticipated pending the results of the MUE? Ex. new clinical practice guideline, changes in departmental workflow, changes to computer system including OMR/POE – please describe potential changes if possible)*

**References:**

**Signatures:**

**Resident:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Project Preceptor:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**RAC Research Subcommittee Rep:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Residency Program Director:** \_\_\_\_\_ **Date:** \_\_\_\_\_



## Research/Quality Improvement (QI) Project

### Expectations:

While working with an experienced project team that is composed of multiple pharmacists and may be interdisciplinary, the resident is the primary investigator (PI) for their respective project. It will be expected the resident lead the project, set project timelines/deadlines, and communicate with the project team concerning project progression, schedule or timeline changes, barriers to project success, etc.

### Successful completion of the research/QI project will include the following milestones:

- External presentation of results at New England Residency Conference
- Submission of project summary OR draft of manuscript to be submitted for publication

### General Timeline:

Research/Quality Improvement Project Timeline	
July	List of approved projects given to PGY1 residents
1 <sup>st</sup> week of August	Rankings due to Chair of RAC Research Subcommittee and RPD by 4:30pm
2 <sup>nd</sup> week of August	Research/QI project assignment announced
	Schedule initial meeting with project team
4 <sup>th</sup> week of August	Completed project proposal, signed by project advisor(s) due to Chair of Research Subcommittee and RPD
Sept 2 <sup>nd</sup>	Draft project defense slides to advisors
2 <sup>nd</sup> week of September	Project defense at resident report
3 <sup>rd</sup> week of September	Draft project protocol to advisors
Last week of September	iRex/IRB submission due
November	Upon iRex/IRB approval: <ul style="list-style-type: none"> <li>- Develop REDCap</li> <li>- Begin data collection</li> <li>- Provide monthly progress updates to RPD</li> </ul>
December	Continue data collection
First week of January	First draft of manuscript to advisors (background, methods, statistics)
Mid-March	Completion of data collection
April 1 <sup>st</sup>	Completion of data analysis
2 <sup>nd</sup> week of April	First Draft of Slides for New England Residency Conference due to advisors
5/9/2024	New England Residency Conference Practice #1
5/16/2024	New England Residency Conference Practice #2
<b>5/20/2024</b>	<b>New England Residency Conference for Pharmacy Residents &amp; Preceptors</b>
6/21/2024	Research/QI Project Summary OR Manuscript Draft due to RPD

## PGY1 Resident Research/QI Projects, past 5 years:

### 2022-2023:

**Eunice Kim, PharmD** – Evaluation of cardiac toxicities in patients treated with bruton tyrosine kinase inhibitors

**Aleksandra Kuznetsov, PharmD** – Identification of pharmacy interventions aimed at reducing missing medications at a large academic medical center

**Kevin Lin, PharmD** – Evaluation of guideline-directed medical therapy at discharge in patients hospitalized with heart failure with reduced ejection fraction

**Alex Peterson-Weber, PharmD** – Use of full dose direct acting oral anticoagulants in patients with peripheral artery disease

### 2021-2022:

**Lama Alfahaid, PharmD** – Evaluation of aPTT-guided vs. anti-Xa-guided heparin management in patients with a durable ventricular assist device

**Brian Crossley, PharmD** – Testosterone breakthrough with Eligard vs. Lupron during drug shortage

**Brittany Cunningham, PharmD** – Clinical features, outcomes, and therapeutic implications in community-acquired versus nosocomial spontaneous bacterial peritonitis

**Meghan Ferguson, PharmD** – Evaluation of prescriber adherence to the triple antithrombotic therapy reduction program (TARP) in patients with atrial fibrillation undergoing a percutaneous coronary intervention (PCI)

### 2020-2021:

**Dema Almolaiki, PharmD** – Efficacy and safety of daunorubicin 90 mg/m<sup>2</sup> vs. 60 mg/m<sup>2</sup> in 7+3 chemotherapy regimens for patients with acute myeloid leukemia

**Xinqi Li, PharmD** – Risk factors and clinical outcomes of infections caused by multi-drug resistant gram-negative organisms in solid organ transplant recipients

**Nicholas Palisano, PharmD** – Evaluating predictors of discordant MRSA nares and respiratory cultures

**Claude Yoo, PharmD** – Comparative efficacies of pegfilgrastim and pegfilgrastim-cbqv at an academic medical center

### 2019-2020:

**Katherine Lee, PharmD** – Evaluating institutional concordance with evidence-based recommendations for the treatment of *Staphylococcus aureus* blood stream infections

**Ashka Patel, PharmD** – Retrospective review of accelerated daratumumab administration (DOI: 10.1177/10781552211009967)

**Michelle Wang, PharmD** – A retrospective comparison of the effectiveness and safety of intravenous olanzapine versus intravenous haloperidol for agitation in the intensive care unit (DOI: 10.1177/0885066620984450)

### 2018-2019:

**Afrak Alkazemi, PharmD** – Anti-factor Xa monitoring of unfractionated heparin in patients on ECMO  
doi: 10.1111/aor.14104. Epub 2021 Nov 11

**Kathryn Owen, PharmD** – Safety and effectiveness of an accelerated intravenous iron administration protocol in hospitalized patients with heart failure  
(DOI: 10.1177/1074248421989871)

**Sarah Warack, PharmD** – Identifying clinical characteristics and molecular markers associated with cancer therapy-induced cardiotoxicity  
 (DOI: DOI: 10.1634/theoncologist.2019-0762)

## PGY1 Resident Research/Quality Improvement Approval Form

Resident:

Project Title:

Project Team Members: Name	Title/Position	Role/(s)

*Roles that team members may fulfill include but are not limited to: oversee data collection, oversee data analysis, subject matter expert who provides recommendations on the direction/design of research project, assistance with manuscript writing.*

- I. **Primary purpose of the project:**
  
- II. **What intervention is being evaluation(research)**
  
- III. **Background and significance:** *(Describe the background of the project, include a critical evaluation of existing knowledge, identify gaps in knowledge that this project is anticipated to fill, include any internal data or practice changes prompting this potential project)*
  
- IV. **Project primary and secondary endpoints/outcomes, if applicable:**
  - Primary outcome:
  - Secondary outcome(s):
  
- V. **Methods:**
  - Study Design:
  - Population:
    - Inclusion Criteria:
    - Exclusion Criteria:
    - Estimated number of subjects (include how this number was determined):
      - How will a list of subjects be identified:
  
- VI. **Data to be collected:** *(include specifics on how the primary and secondary outcomes will be evaluated)*
  - Include, for each data point, how data will be obtained
  
- VII. **Planned statistical analysis (include if you/your project team assistance from a statistician will be needed for advanced statistical analysis):**
  
- VIII. **Impact:** *(how will this project potentially impact BIDMC, the department of pharmacy, or contribute to existing literature?)*

**References:**

**Signatures:**

**Resident:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Project Preceptor:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**RAC Research Subcommittee Rep:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Residency Program Director:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Requirements for Certificate of Completion**

Graduation from the PGY1 Pharmacy Residency program requires the successful completion of all required elements and activities as defined by the residency program manual. Progress towards achieving these goals will be monitored at least quarterly with the resident’s longitudinal RAC advisor, RPD, and RPC as part of the resident’s quarterly development plan.

**At a minimum, the resident must meet the following to achieve successful completion of the PGY1 program and be award a resident certificate of completion:**

1. Licensed as a pharmacist in the state of Massachusetts for at least two thirds of the program (licensure occurring typically no later than November 1st)
2. Participate in all BIDMC and Residency Program Orientation and Training activities
3. All missed activities **MUST** be communicated to the RPD and made up by the resident at a later date in a manner agreed upon by resident and RPD and/or RPC
4. Complete all required focused and longitudinal learning experiences (see page 18)
5. Obtain Achieved for the Residency (ACHR) for the learning objectives as defined in general program manual above
6. Deliver at least five (5) presentations during weekly Resident Report
7. Complete medication use evaluation (MUE) including post-project practice change implementation
8. Complete quality improvement/research project
9. Complete all required components of the Residency Teaching Certificate Program with MCPHS
10. Present one (1) ACPE-accredited continuing education (CE) program
11. Complete of at least two (2) external presentations – most commonly:

- a. ASHP Midyear Clinical Meeting (December) – poster presentation of MUE results
  - b. New England Residency Conference (May) – platform presentation of research/QI project
12. Serve as resident representative to at least one (1) RAC Subcommittee
  13. Actively maintain residency portfolio in PharmAcademic (reviewed by RPD at least quarterly)
  14. Above activities will not be marked as complete until uploaded to PharmAcademic

## **PGY2 Ambulatory Care Program Appendix**

### **Requirements for Certificate of Completion**

**At a minimum, the resident must meet the following to achieve successful completion of the PGY2 Ambulatory Care program and be awarded a resident certificate of completion:**

1. Participation in residency orientation
2. Completion of all scheduled required and elective rotations
3. Completion of longitudinal research project, including presentation at state or national meeting
4. Participation in Residency Advisory Committee (RAC) meetings, when applicable
5. Participation in drug information services
6. Presentation of continuing education program to pharmacy staff
7. Deliver at least 1 presentation during weekly resident report
8. Complete medication use evaluation
9. Participation in recruitment efforts for upcoming residency class
10. Completion of longitudinal staffing experience
11. Completion of teaching requirements set forth by Massachusetts College of Pharmacy and Health Sciences (MCPHS)

## **PGY2 Critical Care Program Appendix Requirements for Certificate of Completion**

**At a minimum, the resident must meet the following to achieve successful completion of the PGY2 Critical Care program and be awarded a resident certificate of completion:**

1. Completion of all required and elective learning experiences
2. Completion of a longitudinal project
3. Presentation of project at a national meeting (ASHP, SCCM or ACCP)
4. Completion of New England Critical Care Symposium Clinical Pearl Presentation
5. Completion of teaching requirements set forth by Massachusetts College of Pharmacy and Health Sciences (MCPHS) including student precepting, seminar participation and completion of didactic lecture
6. Participation in code response
7. Participation in clinical on call program
8. Completion of all assigned pharmacy service commitment weekends (every 3<sup>rd</sup> weekend following orientation)
9. Completion of all assigned journal club presentations
10. Completion of at least one resident report presentation
11. Completion of at least one continuing education presentation
12. Participation in one institutional committee, as assigned
13. Completion of all PGY2 Critical Care Appendix Topics
14. Participation in recruitment efforts for upcoming residency class
15. Completion of all evaluations
16. Achievement of >80% of residency goals
17. Submission of deliverables related to educational objectives
  - a. Examples of patient care notes (Objective 1.1.5 and 1.1.7)
  - b. Examples of resident participation in the preparation or revision of a drug class review, monograph, treatment guideline, or protocol (Objective 2.1.1)
  - c. Examples of work completed as part of participation in a medication-use evaluation, if applicable. (Objective 2.1.2)
  - d. Examples of medication -use system improvements identified by resident, if applicable. (Objective 2.1.4)

- e. Examples of resident presentation of major project and examples of written summary of major project in manuscript style. (Objective 2.2.6)
- f. Examples of resident contribution to critical care pharmacy departmental management, if applicable. (Objective 3.2.1)
- g. Examples of presentation slides (patient case, clinical pearl, CE, resident report and MUE) and handouts (topic presentation, journal club, sedation lectures) developed by the resident. Include name, date, and audience for each presentation. (Objective 4.1.2)
- h. Examples of resident written communication to disseminate knowledge (such as newsletters, written drug information, presentations) developed by resident. (Objective 4.1.3)
- i. Examples of assessment of effectiveness of resident presentation/education. (Objective 4.1.4)

## **PGY2 Infectious Diseases Appendix**

**At a minimum, the resident must meet the following to achieve successful completion of the PGY2 Infectious Diseases program and be awarded a resident certificate of completion:**

1. Completion of all required and elective learning experiences
2. Completion of longitudinal project, including presentation at a national meeting (ASHP, IDWeek or SHEA)
3. Application to MSHP state Clinical Pearl Presentation
4. Completion of teaching requirements set forth by Massachusetts College of Pharmacy and Health Sciences (MCPHS) including seminar participation and teaching assistant duties for Antiinfectives course (Quiz-Exam prep, Lecture preparation and delivery)
5. Participation in clinical on call program
6. Completion of all assigned journal club presentations
7. Completion of at least one continuing education presentation
8. Participation in Antibiotic Subcommittee with alternating minutes and snapshot presentations, MUE and project presentations
9. Completion of all evaluations
10. Completion of all required PGY2 Infectious Diseases Appendix Topics
11. Participation in recruitment efforts for upcoming residency class
12. Achievement of >80% of residency goals
13. Presentation to the Infectious Diseases Fellows as part of the Stewardship Friday program
14. Completion of at least one peer review for a journal